Logging in to Dialog

Trying 3106900061...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
****
ENTER PASSWORD:
□t8401cpq
****
Welcome to DIALOG

Dialog leel 01.07.09D

Lat logoff: 04jl01 12:29:09
Logon file001 28jl01 18:28:13
*** ANNOUNCEMENT ***
***
--Important Notice to Freelance Athor--
See HELP FREELANCE for more information
***
NEW FILE RELEASED
***EIU Bine Magaine (File 622)
***IBISWorld Market Reearch (File 753)
***Inetext PDF Index (File 745)
***Dail and Snda Telegraph (London) Paper (File 756)
***The Mirror Grop Pblication (United Kingdom) (File 757)

UPDATING RESUMED
***Delphe Eropean Bine (File 481)
***Book In Print (File 470)
***
RELOADED
***Kompa Middle Eat/Africa/Mediterranean (File 585)
***Kompa Aia/Pacific (File 592)
***Kompa Central/Eatern Erope (File 593)
***Kompa Canada (File 594)

New pricing trctre for Pharmaproject (File 128/928) from April 1, 2001. Check Help New128 or Help New928 for frther information.

>>>Get immediate new with Dialog' Firt Releae
new erice. Firt Releae pdate major newwire databae within 15 minte of tranmiion oer the wire. Firt Releae proide fll Dialog earchabilit and fll-text featre. To earch Firt Releae file in OneSearch impl BEGIN FIRST for coerage from Dialog' broad pectrm of new wire.

>>> Enter BEGIN HOMEBASE for Dialog Annoncement <<<
>>> of new databae, price change, etc. <<<
****

File 1:ERIC 1966-2001/Jl 13
(c) format onl 2001 The Dialog Corporation

Set Item Decription

```
      ---  -----  ----------
? □dialog

>>>'IALOG' not recognized as set or accession number
? b 410

       28jul01 18:28:16 User233835 Session D505.1
            $0.42    0.119 DialUnits File1
     $0.42  Estimated cost File1
     $0.05  TYMNET
     $0.47  Estimated cost this search
     $0.47  Estimated total session cost   0.119 DialUnits

File 410:Chronolog(R)  1981-2001/June
       (c) 2001 The Dialog Corporation

      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi

HILIGHT set on as ''
HILIGHT set on as ''
? b 155, 5, 357

       28jul01 18:28:24 User233835 Session D505.2
            $0.00    0.057 DialUnits File410
     $0.00  Estimated cost File410
     $0.01  TYMNET
     $0.01  Estimated cost this search
     $0.48  Estimated total session cost   0.176 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-2001/Aug W2
  File   5:Biosis Previews(R)  1969-2001/Jul W4
         (c) 2001 BIOSIS
  File 357:Derwent Biotechnology Abs  1982-2001/Aug B1
         (c) 2001 Derwent Publ Ltd
*File 357: Price changes as of 1/1/01. Please see HELP RATES 357.

      Set  Items  Description
      ---  -----  -----------
? e au=loeb, lawrence


Ref   Items  Index-term
E1        1  AU=LOEB-ZEITLIN S
E2        1  AU=LOEB-ZEITLIN SUSAN
E3        0 *AU=LOEB, LAWRENCE
E4        3  AU=LOEBACH J
E5        1  AU=LOEBACH J L
E6        2  AU=LOEBACH JENNIFER
E7        2  AU=LOEBACH M
E8        1  AU=LOEBACH WETHERELL J
E9        1  AU=LOEBAU S
E10       1  AU=LOEBB M J
E11       1  AU=LOEBBECKE ANDREA
E12       2  AU=LOEBBECKE F

          Enter P or PAGE for more
? e au=loeb, l


Ref   Items  Index-term
E1        1  AU=LOEB-ZEITLIN S
E2        1  AU=LOEB-ZEITLIN SUSAN
```

```
E3        0 *AU=LOEB,
E4        3  AU=LOEBAC
E5        1  AU=LOEBACH J L
E6        2  AU=LOEBACH JENNIFER
E7        2  AU=LOEBACH M
E8        1  AU=LOEBACH WETHERELL J
E9        1  AU=LOEBAU S
E10       1  AU=LOEBB M J
E11       1  AU=LOEBBECKE ANDREA
E12       2  AU=LOEBBECKE F

          Enter P or PAGE for more
? p


Ref   Items  Index-term
E13       1  AU=LOEBBECKE J V
E14       3  AU=LOEBBECKE LUDWIG
E15       1  AU=LOEBBECKE STEFAN
E16       1  AU=LOEBBEL H
E17       2  AU=LOEBBERDING A
E18       1  AU=LOEBBERING U
E19       2  AU=LOEBBERT J
E20       4  AU=LOEBBERT K
E21      10  AU=LOEBBERT KERSTIN
E22       1  AU=LOEBBERT M
E23       8  AU=LOEBBERT R
E24       2  AU=LOEBBERT R W

          Enter P or PAGE for more
? p


Ref   Items  Index-term
E25       2  AU=LOEBBERT RALF
E26       3  AU=LOEBBERT RALF W
E27       1  AU=LOEBE D
E28       1  AU=LOEBE F M
E29       3  AU=LOEBE F-M
E30      15  AU=LOEBE FM
E31       5  AU=LOEBE J
E32       4  AU=LOEBE L P
E33      12  AU=LOEBE L-P
E34     109  AU=LOEBE M
E35       5  AU=LOEBE MATHIAS
E36      25  AU=LOEBE MATTHIAS

          Enter P or PAGE for more
? e au=loeb, l


Ref   Items  Index-term
E1        1  AU=LOEB-ZEITLIN S
E2        1  AU=LOEB-ZEITLIN SUSAN
E3        0 *AU=LOEB, L
E4        3  AU=LOEBACH J
E5        1  AU=LOEBACH J L
E6        2  AU=LOEBACH JENNIFER
E7        2  AU=LOEBACH M
E8        1  AU=LOEBACH WETHERELL J
E9        1  AU=LOEBAU S
E10       1  AU=LOEBB M J
E11       1  AU=LOEBBECKE ANDREA
E12       2  AU=LOEBBECKE F
```

Enter P or PAGE for more
? e au=mullins

Ref	Items	Index-term
E1	3	AU=MULLINNIX MICHAEL J
E2	2	AU=MULLINNIX MJ
E3	0	*AU=MULLINS
E4	6	AU=MULLINS A
E5	1	AU=MULLINS A D
E6	5	AU=MULLINS A J
E7	3	AU=MULLINS A L
E8	5	AU=MULLINS A M
E9	3	AU=MULLINS A P
E10	2	AU=MULLINS AC
E11	1	AU=MULLINS AD
E12	1	AU=MULLINS AJ

Enter P or PAGE for more
? e au=mullins, jame

Ref	Items	Index-term
E1	1	AU=MULLINS-HIRTE DJ
E2	1	AU=MULLINS-KEENE CL
E3	0	*AU=MULLINS, JAME
E4	1	AU=MULLINSIN AP
E5	2	AU=MULLIS A
E6	5	AU=MULLIS A K
E7	1	AU=MULLIS A W
E8	7	AU=MULLIS AK
E9	3	AU=MULLIS B
E10	1	AU=MULLIS BRIAN H
E11	14	AU=MULLIS C H
E12	3	AU=MULLIS C H JR

Enter P or PAGE for more
? e au=mullins, james

Ref	Items	Index-term
E1	1	AU=MULLINS-HIRTE DJ
E2	1	AU=MULLINS-KEENE CL
E3	0	*AU=MULLINS, JAMES
E4	1	AU=MULLINSIN AP
E5	2	AU=MULLIS A
E6	5	AU=MULLIS A K
E7	1	AU=MULLIS A W
E8	7	AU=MULLIS AK
E9	3	AU=MULLIS B
E10	1	AU=MULLIS BRIAN H
E11	14	AU=MULLIS C H
E12	3	AU=MULLIS C H JR

Enter P or PAGE for more
? e au=mullins, j

Ref	Items	Index-term
E1	1	AU=MULLINS-HIRTE DJ
E2	1	AU=MULLINS-KEENE CL
E3	0	*AU=MULLINS, J
E4	1	AU=MULLINSIN AP
E5	2	AU=MULLIS A
E6	5	AU=MULLIS A K

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E7         1  AU=MULLIS [redacted] W
E8         7  AU=MULLIS [redacted]
E9         3  AU=MULLIS B
E10        1  AU=MULLIS BRIAN H
E11       14  AU=MULLIS C H
E12        3  AU=MULLIS C H JR

          Enter P or PAGE for more
? logoff

       28jul01 18:31:20 User233835 Session D505.3
            $0.51    0.158 DialUnits File155
     $0.51  Estimated cost File155
            $1.06    0.189 DialUnits File5
     $1.06  Estimated cost File5
            $2.80    0.221 DialUnits File357
     $2.80  Estimated cost File357
            OneSearch, 3 files,  0.568 DialUnits FileOS
     $0.15  TYMNET
     $4.52  Estimated cost this search
     $5.00  Estimated total session cost   0.744 DialUnits
Logoff: level 01.07.09 D  18:31:20
```

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Logging in to Dialog

Trying 9158046...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ********
ENTER PASSWORD:
 t840lcpq
 ********
Welcome to DIALOG

Dialog level 99.01.29D

Last logoff:  28jan99 15:21:34
Logon file001 03feb99 12:38:00
ANNOUNCEMENT    ****    ANNOUNCEMENT    ****    ANNOUNCEMENT
NEW
***Financial Times Abstracts - January 4, 1999
***MediConf (File 431) - December 1, 1998
                              ***
RELOADED
***EMBASE (Files 72,73)
***CLAIMS/U.S. Patents (340, 341, 942)
***BIOSIS Previews (File 5,55)- enhanced 11/16/98, see HELP NEWS5
***Claims Reassignment/Reexamination (File 123)
                              ***
REMOVED
***Disclosure Database, File 100, removed 1/31/99
***Technimetrics Executive Directory, File 552,
   removed effective 1/31/99
***Hoppenstedt Dir of German Companies removed
   effective 12/31/98
                              ***
DIALINDEX
***DIALINDEX categories have been revised. For listing of new/revised
 dialog
   categories see http://library.dialog.com/bluesheets/html/blo.html.
   For more details, see HELP NEWS411.

     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<
***** The DIALORDER suppliers DYNAMIC and FILEDOC are no longer  *****
***** in business. Please do not use them.                       *****
*****                                                           *****
*****File 265:  Please use file 266 as file 265 is no longer     *****
*****  available.                                               *****
***** The MASIS DIALORDER service has been discontinued. For     *****
*****
***** details, please contact MARUZEN CO. LTD, at 3-3272-3496.   *****

*****                                                           *****
***** Files 100 and 552 have been removed from DIALOG.           *****
*****                                                           *****
***** NEW CURRENT year ranges installed.                         *****

File   1:ERIC  1966-1998/Dec
       (c) format only 1999 The Dialog Corporation
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*File   1: In 1999, RIE and CIJE sections will be added separately,
as soon as they arrive. UDs may be irregular. UD codes will change.

      Set  Items  Description
      ---  -----  -----------
? b 410

>>>'IALOG' not recognized as set or accession number
? set hi ;set hi

       03feb99 12:38:08 User233835 Session D235.1
            $0.31    0.095 DialUnits File1
     $0.31  Estimated cost File1
            FTSNET   0.016 Hrs.
     $0.31  Estimated cost this search
     $0.31  Estimated total session cost   0.095 DialUnits

File 410:Chronolog(R)  1981-1999 Jan/Feb
       (c) 1999 The Dialog Corporation plc

      Set  Items  Description
      ---  -----  -----------
?
HILIGHT set on as ''
HILIGHT set on as ''
? b 155,5, 399, 357, 351, 654

       03feb99 12:39:11 User233835 Session D235.2
            $0.00    0.041 DialUnits File410
     $0.00  Estimated cost File410
            FTSNET   0.033 Hrs.
     $0.00  Estimated cost this search
     $0.31  Estimated total session cost   0.136 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1999/Mar W4
         (c) format only 1999 Dialog Corporation
  File   5:BIOSIS PREVIEWS(R)  1969-1999/Jan W3
         (c) 1999 BIOSIS
  File 399:CA SEARCH(R)  1967-1999/UD=13005
         (c) 1999 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
  File 357:Derwent Biotechnology Abs  1982-1999/Feb B1
         (c) 1999 Derwent Publ Ltd
*File 357: Effective October 1, DialUnit rates adjusted for unrounding.
See HELP NEWS 357 for details.
  File 351:DERWENT WPI  1963-1998/UD=9904;UP=9904;UM=9904
         (c)1999 Derwent Info Ltd
*File 351: From UD=9901, UM= and UP= update codes will"jump ahead."
See HELP NEWS 351 for info on Alert problems in updates 9851 and 9901.
  File 654:US Pat.Full.  1990-1999/Jan 26
         (c) format only 1999 The Dialog Corp.
*File 654: Reassignment data now current through 08/20/98.
Reexamination, extension, expiration, reinstatement updated weekly.

      Set  Items  Description
      ---  -----  -----------
? s ribonucleoside and (analog or analogs)

           5561  RIBONUCLEOSIDE
         264434  ANALOG
         434367  ANALOGS
      S1    871  RIBONUCLEOSIDE AND (ANALOG OR ANALOGS)
? s s1 and (virus or viral)
```

```
          871  S1
       861523  VIRUS
       428212  VIRAL
   S2     276  S1 AND (VIRUS OR VIRAL)
? s s2 and (incorporate or incorporation)

          276  S2
       144843  INCORPORATE
       230968  INCORPORATION
   S3     141  S2 AND (INCORPORATE OR INCORPORATION)
? ds

Set     Items   Description
S1        871   RIBONUCLEOSIDE AND (ANALOG OR ANALOGS)
S2        276   S1 AND (VIRUS OR VIRAL)
S3        141   S2 AND (INCORPORATE OR INCORPORATION)
? t s1/6/1-15

 1/6/1     (Item 1 from file: 155)
09746991   99024021
  Demonstration of equilibrative nucleoside transporters (hENT1 and hENT2)
in nuclear envelopes of cultured human choriocarcinoma (BeWo) cells by
functional reconstitution in proteoliposomes.
Nov 13 1998

 1/6/2     (Item 2 from file: 155)
09744183   99059478
  Evidence that the AMP-activated protein kinase stimulates rat liver
carnitine palmitoyltransferase I by phosphorylating cytoskeletal
components.
Nov 20 1998

 1/6/3     (Item 3 from file: 155)
09680820   98414643
  Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of
the hepatitis C virus.
Sep 15 1998

 1/6/4     (Item 4 from file: 155)
09636471   98366904
  Evidence for 5' AMP-activated protein kinase mediation of the effect of
muscle contraction on glucose transport.
Aug 1998

 1/6/5     (Item 5 from file: 155)
09572290   98295761
  Metabolism and metabolic actions of 6-methylpurine and 2-fluoroadenine in
human cells.
May 15 1998

 1/6/6     (Item 6 from file: 155)
09519764   98241707
  Resistance of human cytomegalovirus to benzimidazole ribonucleosides maps
to two open reading frames: UL89 and UL56.
Jun 1998
```

1/6/7 (Item 7 from file: 155)
09498638 98217309
Gemcitabine 5'-triphosphate is a stoichiometric mechanism-based inhibitor of Lactobacillus leichmannii **ribonucleoside** triphosphate reductase: evidence for thiyl radical-mediated nucleotide radical formation.
Apr 21 1998

1/6/8 (Item 8 from file: 155)
09458381 98162621
Inhibition of glucocorticoid-induced apoptosis with 5-aminoimidazole-4-carboxamide **ribonucleoside**, a cell-permeable activator of AMP-activated protein kinase.
Feb 24 1998

1/6/9 (Item 9 from file: 155)
09401863 98097814
AICA riboside increases AMP-activated protein kinase, fatty acid oxidation, and glucose uptake in rat muscle.
Dec 1997

1/6/10 (Item 10 from file: 155)
09387674 98092286
DNA helicase activity of the hepatitis C virus nonstructural protein 3.
Nov 15 1997

1/6/11 (Item 11 from file: 155)
09258976 97169003
Control of hepatic fatty acid oxidation by 5'-AMP-activated protein kinase involves a malonyl-CoA-dependent and a malonyl-CoA-independent mechanism.
Jan 15 1997

1/6/12 (Item 12 from file: 155)
09223623 96176952
Deoxyribonucleoside triphosphate pools and growth of glutathione-depleted 3T6 mouse fibroblasts.
Mar 7 1996

1/6/13 (Item 13 from file: 155)
09183615 97450847
Antitumor and radiosensitizing effects of (E)-2'-deoxy-2'-(fluoromethylene) cytidine, a novel inhibitor of **ribonucleoside** diphosphate reductase, on human colon carcinoma xenografts in nude mice.
Sep 15 1997

1/6/14 (Item 14 from file: 155)
09166167 97402550
pH dependence of self-splicing by the group IA2 intron in a pre-mRNA derived from the nrdB gene of bacteriophage T4.
Sep 1 1997

1/6/15 (Item 15 from file: 155)
09122001 97364001
Phase I trial of fluorouracil modulation by N-phosphonacetyl-L-aspartate and 6-methylmercaptopurine **ribonucleoside** (MMPR), and leucovorin in patients with advanced cancer.
1997

? t s2/6/1-15

2/6/1 (Item 1 from file: 155)
09680820 98414643
Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of the hepatitis C **virus**.
Sep 15 1998

2/6/2 (Item 2 from file: 155)
09572290 98295761
Metabolism and metabolic actions of 6-methylpurine and 2-fluoroadenine in human cells.
May 15 1998

2/6/3 (Item 3 from file: 155)
09519764 98241707
Resistance of human cytomegalovirus to benzimidazole ribonucleosides maps to two open reading frames: UL89 and UL56.
Jun 1998

2/6/4 (Item 4 from file: 155)
09387674 98092286
DNA helicase activity of the hepatitis C **virus** nonstructural protein 3.
Nov 15 1997

2/6/5 (Item 5 from file: 155)
09166167 97402550
pH dependence of self-splicing by the group IA2 intron in a pre-mRNA derived from the nrdB gene of bacteriophage T4.
Sep 1 1997

2/6/6 (Item 6 from file: 155)
08972416 97210804
Design, synthesis, and antiviral evaluation of 2-chloro-5,6-dihalo-1-beta -D-ribofuranosylbenzimidazoles as potential agents for human cytomegalovirus infections.
Feb 28 1997

2/6/7 (Item 7 from file: 155)
08972414 97210802
Synthesis and antiproliferative and antiviral activity of carbohydrate-modified pyrrolo[2,3-d]pyridazin-7-one nucleosides.
Feb 28 1997

2/6/8 (Item 8 from file: 155)
08972412 97210800
Synthesis, antiproliferative and antiviral activity of imidazo[4,5-d]isothiazole nucleosides as 5:5 fused **analogs** of nebularine and 6-methylpurine **ribonucleoside**.
Feb 28 1997

2/6/9 (Item 9 from file: 155)
08612475 96264015
Inhibition of neurotropic mouse retrovirus replication in glial cells by synthetic oligo(2'-O-methyl)**ribonucleoside** phosphorothioates.

Dec 1995

2/6/10 (Item 10 from file: 155)
08386569 95378261
The in vitro translocase activity of lambda terminase and its subunits. Kinetic and biochemical analysis.
Aug 25 1995

2/6/11 (Item 11 from file: 155)
07499537 93188169
Nucleotide sequence of the primer RNA for DNA replication of filamentous bacteriophages.
Apr 1993

2/6/12 (Item 12 from file: 155)
06629901 90249588
The metabolism of ribavirin in erythrocytes and nucleated cells.
1990

2/6/13 (Item 13 from file: 155)
06253455 86111810
Inhibition of herpes simplex **virus** DNA polymerase by purine **ribonucleoside** monophosphates.
Feb 5 1986

2/6/14 (Item 14 from file: 155)
06116075 87036919
Metabolic activation of 9([2-hydroxy-1-(hydroxymethyl)ethoxy]methyl)guanine in human lymphoblastoid cell lines infected with Epstein-Barr **virus**.
Nov 1986

2/6/15 (Item 15 from file: 155)
06042411 86196285
Selection and characterization of mutant S49 T-lymphoma cell lines resistant to phosphonoformic acid: evidence for inhibition of ribonucleotide reductase.
May 1986
? t s3/6/1-15

3/6/1 (Item 1 from file: 155)
04784920 85207834
Photoaffinity labeling of a **viral** induced protein from tobacco. Characterization of nucleotide-binding properties.
Jun 25 1985

3/6/2 (Item 2 from file: 155)
04584743 81076576
Specific changes in Q-**ribonucleoside** containing transfer RNA species during Friend leukemia cell erythroid differentiation.
Aug 11 1980

3/6/3 (Item 3 from file: 155)
02334944 77031809
Replicative bacteriophage DNA synthesis in plasmolyzed T4-infected cells: evidence for two independent pathways to DNA.

Oct 1976

3/6/4 (Item 1 from file: 5)
04761042 BIOSIS NO.: 000080064169
PHOTOAFFINITY LABELING OF A **VIRAL** INDUCED PROTEIN FROM TOBACCO NICOTIANA-TABACUM CULTIVAR TURKISH-SAMSUN CHARACTERIZATION OF NUCLEOTIDE-BINDING PROPERTIES
1985

3/6/5 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA

3/6/6 (Item 1 from file: 654)
02904238
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) GLYCOPROTEIN B (GB) AND USES THEREOF
FULL TEXT: 4005 lines

3/6/7 (Item 2 from file: 654)
02901620
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) INTERLEUKIN 6 (IL-6) AND USES THEREOF
FULL TEXT: 3965 lines

3/6/8 (Item 3 from file: 654)
02899010
VIRION PROTEIN 26 FROM KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 2244 lines

3/6/9 (Item 4 from file: 654)
02899006
2'-MODIFIED OLIGONUCLEOTIDES
FULL TEXT: 3827 lines

3/6/10 (Item 5 from file: 654)
02898471
BIO-OLIGOMER LIBRARIES AND A METHOD OF USE THEREOF
FULL TEXT: 2660 lines

3/6/11 (Item 6 from file: 654)
02893545
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) **VIRAL** MACROPHAGE INFLAMMATORY PROTEIN-1.ALPHA. II (VMIP-1.ALPHA. II) AND USES THEREOF
FULL TEXT: 3892 lines

3/6/12 (Item 7 from file: 654)
02893525
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) INTERLEUKIN 6 (IL-6) AND USES THEREOF
FULL TEXT: 4609 lines

3/6/13 (Item 8 from file: 654)
02893362
ANTIVIRAL PHOSPHONOMETHOXYALKYLENE PURINE AND PYRIMIDINE DERIVATIVES
FULL TEXT: 1610 lines

3/6/14 (Item 9 from file: 654)
02892879
GLYCOPROTEIN L AND CLYCOPROTEIN M FROM KAPOSI'S SARCOMA ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 2735 lines

3/6/15 (Item 10 from file: 654)
02888043
POLYPEPTIDES FROM KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 5870 lines
? ds

Set	Items	Description
S1	871	RIBONUCLEOSIDE AND (ANALOG OR ANALOGS)
S2	276	S1 AND (VIRUS OR VIRAL)
S3	141	S2 AND (INCORPORATE OR INCORPORATION)

? s s2 and (mutation or mutations or mutate or mutates)

	276	S2
	348473	MUTATION
	175799	MUTATIONS
	1207	MUTATE
	220	MUTATES
S4	77	S2 AND (MUTATION OR MUTATIONS OR MUTATE OR MUTATES)

? t s4/6/1-15

4/6/1 (Item 1 from file: 155)
09519764 98241707
Resistance of human cytomegalovirus to benzimidazole ribonucleosides maps to two open reading frames: UL89 and UL56.
Jun 1998

4/6/2 (Item 2 from file: 155)
06042411 86196285
Selection and characterization of mutant S49 T-lymphoma cell lines resistant to phosphonoformic acid: evidence for inhibition of ribonucleotide reductase.
May 1986

4/6/3 (Item 3 from file: 155)
02334944 77031809
Replicative bacteriophage DNA synthesis in plasmolyzed T4-infected cells: evidence for two independent pathways to DNA.
Oct 1976

4/6/4 (Item 1 from file: 5)
11486819 BIOSIS NO.: 199800268151
Resistance of human cytomegalovirus to benzimidazole ribonucleosides maps to two open reading frames: UL89 and UL56.
1998

4/6/5 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. rts. reserv.

Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA

4/6/6 (Item 1 from file: 654)
02904238
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) GLYCOPROTEIN B (GB) AND USES THEREOF
FULL TEXT: 4005 lines

4/6/7 (Item 2 from file: 654)
02901620
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) INTERLEUKIN 6 (IL-6) AND USES THEREOF
FULL TEXT: 3965 lines

4/6/8 (Item 3 from file: 654)
02899006
2'-MODIFIED OLIGONUCLEOTIDES
FULL TEXT: 3827 lines

4/6/9 (Item 4 from file: 654)
02893545
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) **VIRAL** MACROPHAGE INFLAMMATORY PROTEIN-1.ALPHA. II (VMIP-1.ALPHA. II) AND USES THEREOF
FULL TEXT: 3892 lines

4/6/10 (Item 5 from file: 654)
02893525
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) INTERLEUKIN 6 (IL-6) AND USES THEREOF
FULL TEXT: 4609 lines

4/6/11 (Item 6 from file: 654)
02888043
POLYPEPTIDES FROM KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 5870 lines

4/6/12 (Item 7 from file: 654)
02887996
NUCLEAR MATRIX PROTEINS
FULL TEXT: 1380 lines

4/6/13 (Item 8 from file: 654)
02887974
METHODS FOR HYBRIDIZATION ANALYSIS UTILIZING ELECTRICALLY CONTROLLED HYBRIDIZATION
FULL TEXT: 1431 lines

4/6/14 (Item 9 from file: 654)
02878456
2'-O-ALKYLTHIOALKYL AND 2'-C-ALKYLTHIOALKYL-CONTAINING NUCLEIC ACIDS
FULL TEXT: 871 lines

4/6/15 (Item 10 from file: 654)
02878114
RECOMBINANT LECTINS
FULL TEXT: 2215 lines
? t s3/7/5

3/7/5 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

129000579 CA: 129(1)579c PATENT
Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA
INVENTOR(AUTHOR): Loeb, Lawrence A.; Mullins, James I.
LOCATION: USA
ASSIGNEE: University of Washington; Loeb, Lawrence A.; Mullins, James I.
PATENT: PCT International ; WO 9818324 A1 DATE: 19980507
APPLICATION: WO 97US19670 (19971027) *US 29404 (19961028) *US 40535 (19970227)
PAGES: 60 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A01N-043/04A; A61K-031/70B; C12N-007/04B; C12N-007/06B; C12Q-001/68B; C12Q-001/70B
DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; US; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; KE; LS; MW; SD ; SZ; UG; ZW; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG
SECTION:
CA201005 Pharmacology
CA263XXX Pharmaceuticals
IDENTIFIERS: ribonucleoside analog virus mutation antiviral, screening antiviral ribonucleoside analog virus mutation, combinatorial library antiviral ribonucleoside analog
DESCRIPTORS:
mRNA...
analogs; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Antiviral agents... Anti-AIDS drugs... Combinatorial library... Coronavirus ... Dengue virus... DNA... Drug delivery systems... Drug screening... Feline immunodeficiency virus... Feline leukemia virus... Hepatitis A virus ... Hepatitis B virus... Hepatitis B... Hepatitis C virus... Hepatitis C... Human immunodeficiency virus 1... Human immunodeficiency virus 2... Human immunodeficiency virus... Human T-lymphotropic virus 1... Human T-lymphotropic virus 2... Influenza virus... Mutation... Nucleoside analogs ... Oral drug delivery systems... Parenteral solutions(drug delivery systems)... Respiratory syncytial virus... Retroviridae... RNA viruses... RNA... Simian immunodeficiency virus... Tissue culture(animal)... Vesicular stomatitis virus...
induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
T cell leukemia...
inhibitors; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Mutagens...
mutagenic potential; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Virus...
mutation rate; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Reactive oxygen species...
reaction; induction of viral mutation by incorporation of miscoding

ribonucleoside analogs into viral RNA, and screening method
Leukemia inhibitors...
T cell leukemia inhibitors; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Nucleic acids...
templates; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
CAS REGISTRY NUMBERS:
9014-24-8 and RNA polymerase II; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
66-22-8 73-24-5 biological studies, RNA nucleoside analog replacement of; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
58-61-7D 58-96-8D 65-46-3D 118-00-3D 957-77-7D 1867-73-8D 2140-64-9D 2140-69-4D 2149-76-0D 3066-86-2D 3868-31-3D 3868-32-4D 7803-88-5D 13007-43-7D 23899-77-6D 25130-29-4D 33962-59-3D 34218-77-4D 39007-51-7D 39007-52-8D 39638-73-8D 39708-01-5D 53337-88-5D 53337-89-6D 57294-74-3D 59495-20-4D 72055-62-0D 82773-20-4D 100997-68-0D 108060-85-1D 137248-64-7D 207340-54-3D 207340-56-5D 207340-58-7D derivs., induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
7782-44-7D free radicals, reaction; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
65-71-4 71-30-7 957-77-7 1867-73-8 2140-64-9 2140-69-4 2149-76-0 3066-86-2 3868-31-3 3868-32-4 7803-88-5 13007-43-7 23899-77-6 25130-29-4 33962-59-3 34218-77-4 39007-51-7 39007-52-8 39638-73-8 39708-01-5 53337-88-5 53337-89-6 57294-74-3 59495-20-4 72055-62-0 82773-20-4 100997-68-0 108060-85-1 137248-64-7 207340-54-3 207340-56-5 207340-58-7 induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
65-46-3 73-40-5 RNA nucleoside analog replacement of; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
? ds

Set	Items	Description
S1	871	RIBONUCLEOSIDE AND (ANALOG OR ANALOGS)
S2	276	S1 AND (VIRUS OR VIRAL)
S3	141	S2 AND (INCORPORATE OR INCORPORATION)
S4	77	S2 AND (MUTATION OR MUTATIONS OR MUTATE OR MUTATES)

? rd s2

>>>Duplicate detection is not supported for File 351.
>>>Duplicate detection is not supported for File 654.

>>>Records from unsupported files will be retained in the RD set.
...examined 50 records (50)
...examined 50 records (100)
...examined 50 records (150)
...examined 50 records (200)
...examined 50 records (250)
...completed examining records
S5 264 RD S2 (unique items)
? t s5/6/1-100

5/6/1 (Item 1 from file: 155)
09680820 98414643
Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of the hepatitis C **virus**.

Sep 15 1998

5/6/2 (Item 2 from file: 155)
09572290 98295761
Metabolism and metabolic actions of 6-methylpurine and 2-fluoroadenine in human cells.
May 15 1998

5/6/3 (Item 3 from file: 155)
09519764 98241707
Resistance of human cytomegalovirus to benzimidazole ribonucleosides maps to two open reading frames: UL89 and UL56.
Jun 1998

5/6/4 (Item 4 from file: 155)
09387674 98092286
DNA helicase activity of the hepatitis C **virus** nonstructural protein 3.
Nov 15 1997

5/6/5 (Item 5 from file: 155)
09166167 97402550
pH dependence of self-splicing by the group IA2 intron in a pre-mRNA derived from the nrdB gene of bacteriophage T4.
Sep 1 1997

5/6/6 (Item 6 from file: 155)
08972416 97210804
Design, synthesis, and antiviral evaluation of 2-chloro-5,6-dihalo-1-beta-D-ribofuranosylbenzimidazoles as potential agents for human cytomegalovirus infections.
Feb 28 1997

5/6/7 (Item 7 from file: 155)
08972414 97210802
Synthesis and antiproliferative and antiviral activity of carbohydrate-modified pyrrolo[2,3-d]pyridazin-7-one nucleosides.
Feb 28 1997

5/6/8 (Item 8 from file: 155)
08972412 97210800
Synthesis, antiproliferative and antiviral activity of imidazo[4,5-d]isothiazole nucleosides as 5:5 fused **analogs** of nebularine and 6-methylpurine **ribonucleoside**.
Feb 28 1997

5/6/9 (Item 9 from file: 155)
08612475 96264015
Inhibition of neurotropic mouse retrovirus replication in glial cells by synthetic oligo(2'-O-methyl)**ribonucleoside** phosphorothioates.
Dec 1995

5/6/10 (Item 10 from file: 155)
08386569 95378261
The in vitro translocase activity of lambda terminase and its subunits. Kinetic and biochemical analysis.

5/6/11 (Item 11 from file: 155)
07499537 93188169
Nucleotide sequence of the primer RNA for DNA replication of filamentous bacteriophages.
Apr 1993

5/6/12 (Item 12 from file: 155)
06629901 90249588
The metabolism of ribavirin in erythrocytes and nucleated cells.
1990

5/6/13 (Item 13 from file: 155)
06253455 86111810
Inhibition of herpes simplex **virus** DNA polymerase by purine **ribonucleoside** monophosphates.
Feb 5 1986

5/6/14 (Item 14 from file: 155)
06116075 87036919
Metabolic activation of 9([2-hydroxy-1-(hydroxymethyl)ethoxy]methyl)guanine in human lymphoblastoid cell lines infected with Epstein-Barr **virus**.
Nov 1986

5/6/15 (Item 15 from file: 155)
06042411 86196285
Selection and characterization of mutant S49 T-lymphoma cell lines resistant to phosphonoformic acid: evidence for inhibition of ribonucleotide reductase.
May 1986

5/6/16 (Item 16 from file: 155)
04784920 85207834
Photoaffinity labeling of a **viral** induced protein from tobacco. Characterization of nucleotide-binding properties.
Jun 25 1985

5/6/17 (Item 17 from file: 155)
04706450 85264705
Synthesis and biological activity of 6-azacadeguomycin and certain 3,4,6-trisubstituted pyrazolo[3,4-d]pyrimidine ribonucleosides.
Aug 1985

5/6/18 (Item 18 from file: 155)
04623422 83213318
Stimulation of calf thymus DNA alpha-polymerase by ATP.
May 25 1983

5/6/19 (Item 19 from file: 155)
04606085 82186636
Localization of the binding sites of prokaryotic and eukaryotic RNA polymerases on simian **virus** 40 DNA.
May 1980

5/6/20 (Item 20 from file: 155)
04584743 81076576
Specific changes in Q-**ribonucleoside** containing transfer RNA species during Friend leukemia cell erythroid differentiation.
Aug 11 1980

5/6/21 (Item 21 from file: 155)
04448779 81191941
Complexes of Rep protein with ATP and DNA as a basis for helicase action.
May 25 1981

5/6/22 (Item 22 from file: 155)
04429431 85009852
Effect of S-adenosylmethionine on human rotavirus RNA synthesis.
Oct 1984

5/6/23 (Item 23 from file: 155)
04389382 83047099
Capacity of deoxycytidine to selectively antagonize cytotoxicity of 5-halogenated **analogs** of deoxycytidine without loss of antiherpetic activity.
Sep 1982

5/6/24 (Item 24 from file: 155)
04370562 82033294
In vitro transcription catalyzed by heat-treated human rotavirus.
Oct 1981

5/6/25 (Item 25 from file: 155)
03715155 82146446
Basis for the differential action of aminonucleoside on normal and transformed human fibroblasts.
Mar 1982

5/6/26 (Item 26 from file: 155)
03239484 78130121
Termination of transcription by Escherichia coli RNA polymerase in vitro is affected by **ribonucleoside** triphosphate base **analogs**.
Apr 10 1978

5/6/27 (Item 27 from file: 155)
03238086 78098423
Enzymology of cells infected with herpes simplex **virus**]
Enzimologiia kletok, infitsirovannykh virusom prostogo gerpesa.
Nov-Dec 1977

5/6/28 (Item 28 from file: 155)
03206111 76010802
N6, O2'-dimethyladenosine a novel methylated **ribonucleoside** next to the 5' terminal of animal cell and **virus** mRNAs.
Sep 18 1975

5/6/29 (Item 29 from file: 155)
03074497 75146665
A poly(U) polymerase in tobacco leaves.

5/6/30 (Item 30 from file: 155)
03023674 76193626
Synthesis and biological studies of 3-(beta-D-ribofuranosyl)-2,3,-dihydro -6H-1,3-oxazine-2,6-dione, a new pyrimidine nucleoside **analog** related to uridine.
May 1976

5/6/31 (Item 31 from file: 155)
02334944 77031809
Replicative bacteriophage DNA synthesis in plasmolyzed T4-infected cells: evidence for two independent pathways to DNA.
Oct 1976

5/6/32 (Item 1 from file: 5)
08988823 BIOSIS NO.: 199396140324
Effect of synthetic fragments of immunodominant regions of HIV glycoproteins on oxidative metabolism of human neutrophils.
1993

5/6/33 (Item 2 from file: 5)
04761042 BIOSIS NO.: 000080064169
PHOTOAFFINITY LABELING OF A **VIRAL** INDUCED PROTEIN FROM TOBACCO NICOTIANA-TABACUM CULTIVAR TURKISH-SAMSUN CHARACTERIZATION OF NUCLEOTIDE-BINDING PROPERTIES
1985

5/6/34 (Item 3 from file: 5)
03877083 BIOSIS NO.: 000075055156
CAPACITY OF DEOXY CYTIDINE TO SELECTIVELY ANTAGONIZE CYTO TOXICITY OF 5 HALOGENATED **ANALOGS** OF DEOXY CYTIDINE WITHOUT LOSS OF ANTI HERPETIC ACTIVITY
1982

5/6/35 (Item 4 from file: 5)
03038709 BIOSIS NO.: 000070064327
SYNTHESIS IN-VITRO OF THE FULL LENGTH COMPLEMENT OF DEFECTIVE INTERFERING PARTICLE RNA OF VESICULAR STOMATITIS **VIRUS**
1980

5/6/36 (Item 5 from file: 5)
03025027 BIOSIS NO.: 000070050645
ROLE OF ATP IN IN-VITRO VACCINIA **VIRUS** RNA SYNTHESIS EFFECTS OF ADENOSINE 5'-BETA-GAMMA IMIDO TRI PHOSPHATE AND ADENOSINE 5'-O-3 THIO TRI PHOSPHATE
1980

5/6/37 (Item 6 from file: 5)
02956263 BIOSIS NO.: 000069064381
IN-VITRO SYNTHESIS OF THE FULL LENGTH COMPLEMENT OF THE NEGATIVE STRAND GENOME RNA OF VESICULAR STOMATITIS **VIRUS**
1980

5/6/38 (Item 7 from file: 5)
02717711 BIOSIS NO.: 000068028304

INITIATION OF RNA SYNTHESIS IN-VITRO BY VESICULAR STOMATITIS **VIRUS**
ROLE OF ATP
1979

5/6/39 (Item 8 from file: 5)
02381904 BIOSIS NO.: 000065038937
INHIBITION OF RNASE BY RIBO NUCLEOTIDES AND TRANSITION STATE **ANALOGS**
IN CELL-FREE EXTRACTS FROM EHRLICH ASCITES TUMOR CELLS
1977

5/6/40 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Enhanced suppression of HIV-1 by the combination of cytidine nucleoside analogs and CTP synthase inhibitors

5/6/41 (Item 2 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA

5/6/42 (Item 3 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Method for inhibiting virus replication in mammalian cells using carbostyril derivatives

5/6/43 (Item 4 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

(2R,4S,5S)-1-(Tetrahydro-4-hydroxy-5-methoxy-2-furanyl)thymine: a potent selective inhibitor of herpes simplex thymidine kinase

5/6/44 (Item 5 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Human immunodeficiency virus reverse transcriptase: purification and substrate properties

5/6/45 (Item 6 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Susceptibility of a herpes simplex virus ribonucleotide reductase null mutant to deoxyribonucleosides and antiviral nucleoside analogs

5/6/46 (Item 7 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Recombinant Escherichia coli for the manufacture of pyrimidine deoxyribonucleosides

5/6/47 (Item 8 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis and antiviral activity of monofluoro and difluoro analogs of

pyrimidine deoxyribonucleosides against human immunodeficiency virus (HIV-1)

5/6/48 (Item 9 from file: 399)

Anti-herpes simplex virus activity of 5-substituted 2-pyrimidinone nucleosides

5/6/49 (Item 10 from file: 399)

Synthesis and antiviral activity of various 3'-azido analogs of pyrimidine deoxyribonucleosides against human immunodeficiency virus (HIV-1, HTLV-III/LAV)

5/6/50 (Item 11 from file: 399)

Structure-activity studies on synthetic peptides inhibiting herpes simplex virus ribonucleotide reductase

5/6/51 (Item 12 from file: 399)

Inhibition of influenza virus A RNA polymerase activity by some 3'-amino-3'-deoxy- and 3'-azido-3'-deoxyribonucleoside-5'-triphosphates

5/6/52 (Item 13 from file: 399)

Phosphorylation of nucleoside analogs by equine herpesvirus type 1 pyrimidine deoxyribonucleoside kinase

5/6/53 (Item 14 from file: 399)

Structure-activity relationships among .alpha.-(N)-heterocyclic acyl thiosemicarbazones and related compounds as inhibitors of herpes simplex virus type 1-specified ribonucleoside diphosphate reductase

5/6/54 (Item 15 from file: 399)

Synthesis of 3'-azido- and 3'-amino-3'-deoxyarabinonucleoside 5'-triphosphates and their substrate properties in the system of polynucleotide synthesizing enzymes

5/6/55 (Item 16 from file: 399)

Characterization of the active site of ribonucleotide reductase of Escherichia coli, bacteriophage T4 and mammalian cells by inhibition studies with hydroxyurea analogs

5/6/56 (Item 17 from file: 399)

DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis and biological activities of 5-(hydroxymethyl, azidomethyl, or aminomethyl)-2'-deoxyuridine and related 5'-substituted analogs

5/6/57 (Item 18 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Enzymic basis for the selective inhibition of varicella-zoster virus by 5-halogenated analogs of deoxycytidine

5/6/58 (Item 19 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Recent studies on the antiviral and biochemical properties of 5-halo-5'-amino-deoxyribonucleosides

5/6/59 (Item 20 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Novel mechanism of resistance to folate analogs: ribonucleoside diphosphate reductase deficiency in bacteriophage T4

5/6/60 (Item 1 from file: 357)
0206331 DBA Accession No.: 97-01452
New oligonucleotides for inhibiting transcription of hepatitis C **virus** RNA - phosphorothioate oligonucleotide **analog** for use as a DNA probe for disease diagnosis or for use in disease and cancer therapy 1996

5/6/61 (Item 1 from file: 351)
010121179 **Image available**
WPI Acc No: 95-022430/199503
Title Terms: INHIBIT; REPLICA; REVERSE; TRANSCRIPTASE; DEPEND; **VIRUS**; UTILISE; COMPOUND; INTRACELLULAR; POOL; **DEOXYRIBONUCLEOSIDE**; PHOSPHATE

5/6/62 (Item 2 from file: 351)
009306582 **Image available**
WPI Acc No: 93-000018/199301
Title Terms: SUBSTITUTE; FURANOSIDE; COMPOUND; PREPARATION; MULTISTEP; PROCESS; HEXA; ENE; OL; FLUORO; HEXA; ENE; DIOL
Index Terms/Additional Words: HEXENE; PROPARGYL; ALCOHOL; PROPENYL; HALIDE

5/6/63 (Item 3 from file: 351)
008122214
WPI Acc No: 90-009215/199002
Title Terms: PYRIDINE; THIO; HYDRAZONE; RIBONUCLEOTIDE; REDUCTASE; INHIBIT; SYNERGISTIC; COMBINATION; ANTIVIRAL; COMPOUND; TREAT; **VIRUS**; INFECT ; HERPES; **VIRUS**; INFECT

5/6/64 (Item 1 from file: 654)
02904238
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) GLYCOPROTEIN B (GB) AND USES THEREOF
FULL TEXT: 4005 lines

5/6/65 (Item 2 f file: 654)
02901621
CAPPED SYNTHETIC RNA, **ANALOGS**, AND APTAMERS
FULL TEXT: 1114 lines

5/6/66 (Item 3 from file: 654)
02901620
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) INTERLEUKIN 6 (IL-6) AND USES THEREOF
FULL TEXT: 3965 lines

5/6/67 (Item 4 from file: 654)
02899018
SYNTHONS FOR SYNTHESIS OF OLIGONUCLEOTIDE N3-P5 PHOSPHORAMIDATES
FULL TEXT: 1933 lines

5/6/68 (Item 5 from file: 654)
02899010
VIRION PROTEIN 26 FROM KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 2244 lines

5/6/69 (Item 6 from file: 654)
02899006
2'-MODIFIED OLIGONUCLEOTIDES
FULL TEXT: 3827 lines

5/6/70 (Item 7 from file: 654)
02898471
BIO-OLIGOMER LIBRARIES AND A METHOD OF USE THEREOF
FULL TEXT: 2660 lines

5/6/71 (Item 8 from file: 654)
02893545
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) **VIRAL** MACROPHAGE INFLAMMATORY PROTEIN-1.ALPHA. II (VMIP-1.ALPHA. II) AND USES THEREOF
FULL TEXT: 3892 lines

5/6/72 (Item 9 from file: 654)
02893525
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS (KSHV) INTERLEUKIN 6 (IL-6) AND USES THEREOF
FULL TEXT: 4609 lines

5/6/73 (Item 10 from file: 654)
02893362
ANTIVIRAL PHOSPHONOMETHOXYALKYLENE PURINE AND PYRIMIDINE DERIVATIVES
FULL TEXT: 1610 lines

5/6/74 (Item 11 from file: 654)
02892879
GLYCOPROTEIN L AND CLYCOPROTEIN M FROM KAPOSI'S SARCOMA ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 2735 lines

5/6/75 (Item 12 [redacted] file: 654)
02888043
POLYPEPTIDES FROM KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS, DNA ENCODING SAME AND USES THEREOF
FULL TEXT: 5870 lines

5/6/76 (Item 13 from file: 654)
02887996
NUCLEAR MATRIX PROTEINS
FULL TEXT: 1380 lines

5/6/77 (Item 14 from file: 654)
02887974
METHODS FOR HYBRIDIZATION ANALYSIS UTILIZING ELECTRICALLY CONTROLLED HYBRIDIZATION
FULL TEXT: 1431 lines

5/6/78 (Item 15 from file: 654)
02881974
MODIFIED OLIGONUCLEOTIDES, THEIR PREPARATION AND THEIR USE
FULL TEXT: 2366 lines

5/6/79 (Item 16 from file: 654)
02878456
2'-O-ALKYLTHIOALKYL AND 2'-C-ALKYLTHIOALKYL-CONTAINING NUCLEIC ACIDS
FULL TEXT: 871 lines

5/6/80 (Item 17 from file: 654)
02878114
RECOMBINANT LECTINS
FULL TEXT: 2215 lines

5/6/81 (Item 18 from file: 654)
02875136
NUCLEOSIDE **ANALOGS**
FULL TEXT: 2372 lines

5/6/82 (Item 19 from file: 654)
02875120
OLIGONUCLEOTIDES WITH ANTI-EPSTEIN-BARR **VIRUS** ACTIVITY
FULL TEXT: 2160 lines

5/6/83 (Item 20 from file: 654)
02875118
CAPPED NUCLEIC ACID OLIGOMERS THAT INHIBIT CAP-DEPENDENT TRANSCRIPTION OF THE INFLUENZA **VIRUS** ENDONUCLEASE
FULL TEXT: 911 lines

5/6/84 (Item 21 from file: 654)
02875101
OLIGONUCLEOTIDE N3'-P5' PHOSPHORAMIDATES: HYBRIDIZATION AND NUCLEASE RESISTANCE PROPERTIES
FULL TEXT: 2087 lines

5/6/85 (Item 22 from file: 654)
02867730
SYNTHESIS DEPROTECTION ANALYSIS AND PURIFICATION OF RNA AND RIBOZYMES
FULL TEXT: 1399 lines

5/6/86 (Item 23 from file: 654)
02867723
KAPOSI'S SARCOMA-ASSOCIATED HERPES **VIRUS** (KSHV) INTERFERON CONSENSUS SEQUENCE BINDING PROTEIN (ICSBP) AND USES THEREOF
FULL TEXT: 3991 lines

5/6/87 (Item 24 from file: 654)
02867426
UNIQUE ASSOCIATED KAPOSI'S SARCOMA **VIRUS** SEQUENCES AND USES THEREOF
FULL TEXT: 3501 lines

5/6/88 (Item 25 from file: 654)
02867338
METHOD FOR THE DETECTION OF TARGET NUCLEIC ACID
FULL TEXT: 770 lines

5/6/89 (Item 26 from file: 654)
02867329
OLIGONUCLEOTIDE SIZING USING CLEAVABLE PRIMERS
FULL TEXT: 3272 lines

5/6/90 (Item 27 from file: 654)
02864218
LIPID NUCLEOTIDE **ANALOG** PRODRUGS FOR ORAL ADMINISTRATION
FULL TEXT: 1158 lines

5/6/91 (Item 28 from file: 654)
02860602
METHOD FOR DETECTING PROSTATE CANCER USING A REAGENT WHICH BINDS PROSTATE CANCER-1 PROTEIN
FULL TEXT: 1441 lines

5/6/92 (Item 29 from file: 654)
02860585
NUCLEIC ACID MEDIATED ELECTRON TRANSFER
FULL TEXT: 2122 lines

5/6/93 (Item 30 from file: 654)
02856896
RNA OLIGONUCLEOTIDES THAT BIND HIV TAT PROTEIN
FULL TEXT: 2056 lines

5/6/94 (Item 31 from file: 654)
02853399
MODIFIED INTERNUCLEOSIDE LINKAGES (II)
FULL TEXT: 1850 lines

5/6/95 (Item 32 from file: 654)
02853257
MODIFIED RIBOZYMES

FULL TEXT: 1167 lines

5/6/96 (Item 33 from file: 654)
02842969
N-2 SUBSTITUTED PURINES IN OLIGONUCLEOTIDES
FULL TEXT: 2806 lines

5/6/97 (Item 34 from file: 654)
02842789
COMPOSITION AND METHOD FOR THE TREATMENT OR PROPHYLAXIS OF **VIRAL** INFECTIONS USING MODIFIED OLIGODEOXYRIBONUCLEOTIDES
FULL TEXT: 14719 lines

5/6/98 (Item 35 from file: 654)
02842675
ENZYMATIC DNA MOLECULES
FULL TEXT: 2442 lines

5/6/99 (Item 36 from file: 654)
02842639
METHOD FOR SIMULATANEOUS IDENTIFICATION OF DIFFERENTIALLY EXPRESED MRNAS AND MEASUREMENT OF RELATIVE CONCENTRATIONS
FULL TEXT: 1423 lines

5/6/100 (Item 37 from file: 654)
02839379
DEPROTECTION OF RNA WITH ALKYLAMINE
FULL TEXT: 1419 lines
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? t s5/7/1,3,6-9, 12, 13, 23, 26, 27, 30, 35, 40, 42, 43, 45, 60

5/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09680820 98414643
Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of the hepatitis C **virus**.
Lohmann V; Roos A; Korner F; Koch JO; Bartenschlager R
Institute for Virology, Johannes-Gutenberg University Mainz, Obere Zahlbacher Strasse 67, Mainz, 55131, Germany.
Virology (UNITED STATES) Sep 15 1998, 249 (1) p108-18, ISSN 0042-6822 Journal Code: XEA
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The biochemical properties of the RNA-dependent RNA polymerase (RdRp) of the hepatitis C **virus** were analyzed. A hexahistidine affinity-tagged NS5B fusion protein was expressed with recombinant baculoviruses in insect cells and purified to near homogeneity. Enzymatic activity of the purified protein was inhibited by KCl or high concentrations of NaCl and was absolutely dependent on Mg2+, which could be replaced by Mn2+. NS5B was found to be processive and able to copy long heteropolymeric templates with an elongation rate of 150-200 nucleotides/min at 22 degreesC. Kinetic constants were determined for all four nucleoside triphosphates and different templates. In case of a heteropolymeric RNA template corresponding to the last 319 nucleotides of the hepatitis C **virus** genome, Km values for UTP, GTP, ATP, and CTP were approximately 1.0, approximately 0.5, approximately 10, and approximately 0.3 microM,

respectively. The profile of several inhibitors of RdRp activity and substrate **analogs** indicated that the enzyme has a strong preference for **ribonucleoside** 5'-triphosphates and that it closely resembles 3Dpol of picornaviruses. Copyright 1998 Academic Press.

5/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09519764 98241707
Resistance of human cytomegalovirus to benzimidazole ribonucleosides maps to two open reading frames: UL89 and UL56.
Krosky PM; Underwood MR; Turk SR; Feng KW; Jain RK; Ptak RG; Westerman AC ; Biron KK; Townsend LB; Drach JC
Department of Biologic and Materials Sciences, School of Dentistry, University of Michigan, Ann Arbor, Michigan 48109, USA.
J Virol (UNITED STATES) Jun 1998, 72 (6) p4721-8, ISSN 0022-538X Journal Code: KCV
Contract/Grant No.: UO1-AI31718, AI, NIAID; M01RR00042, RR, NCRR; GM07767 , GM, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
2,5,6-Trichloro-1-beta-D-ribofuranosyl benzimidazole (TCRB) is a potent and selective inhibitor of human cytomegalovirus (HCMV) replication. TCRB acts via a novel mechanism involving inhibition of **viral** DNA processing and packaging. Resistance to the 2-bromo **analog** (BDCRB) has been mapped to the UL89 open reading frame (ORF), and this gene product was proposed as the **viral** target of the benzimidazole nucleosides. In this study, we report the independent isolation of **virus** that is 20- to 30-fold resistant to TCRB (isolate C4) and the characterization of the **virus**. The six ORFs known to be essential for **viral** DNA cleavage and packaging (UL51, UL52, UL56, UL77, UL89, and UL104) were sequenced from wild-type HCMV, strain Towne, and from isolate C4. Mutations were identified in UL89 (D344E) and in UL56 (Q204R). The mutation in UL89 was identical to that previously reported for **virus** resistant to BDCRB, but the mutation in UL56 is novel. Marker transfer analysis demonstrated that each of these mutations individually caused approximately 10-fold resistance to the benzimidazoles and that the combination of both mutations caused approximately 30-fold resistance. The rate and extent of replication of the mutants was the same as for wild-type **virus**, but the viruses were less sensitive to inhibition of DNA cleavage by TCRB. Mapping of resistance to UL56 supports and extends recent work showing that UL56 codes for a packaging motif binding protein which also has specific nuclease activity (E. Bogner et al., J. Virol. 72:2259-2264, 1998). Resistance which maps to two different genes suggests that their putative proteins interact and/or that either or both have a benzimidazole **ribonucleoside** binding site. The results also suggest that the gene products of UL89 and UL56 may be antiviral drug targets.

5/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08972416 97210804
Design, synthesis, and antiviral evaluation of 2-chloro-5,6-dihalo-1-beta -D-ribofuranosylbenzimidazoles as potential agents for human cytomegalovirus infections.
Zou R; Drach JC; Townsend LB
Department of Medicinal Chemistry, College of Pharmacy, University of Michigan, Ann Arbor 48109-1065, USA.
J Med Chem (UNITED STATES) Feb 28 1997, 40 (5) p811-8, ISSN 0022-2623 Journal Code: J0F
Contract/Grant No.: NO1-AI 42554, AI, NIAID; NO1-AI7264, AI, NIAID;

U01-AI31718, AI, NIAID
Languages: ENGLISH
Document type: JOURNAL ARTICLE

2-Chloro-5,6-difluorobenzimidazole (8) was prepared from 4,5-difluoro-2-nitroaniline (5) via successive reduction, cyclization, and diazotization reactions. 2-Chloro-5,6-dibromobenzimidazole (10) was obtained by a direct bromination of 2-chlorobenzimidazole (9) with bromine-water. 2-Chloro-5,6-diiodobenzimidazole (15) was synthesized by a stepwise transformation of the nitro functions of 2-chloro-5,6-dinitrobenzimidazole (11) into iodo groups via diazotization reactions. Ribosylation of 8, 10, and 15 gave the respective beta nucleosides 16a-c as the major products along with a small amount of the alpha anomers 17a-c. Deprotection of 16a-c afforded the corresponding free beta nucleosides 2-chloro-5,6-difluoro-1-beta-D-ribofuranosylbenzimidazole (2), 2-chloro-5,6-dibromo-1-beta-D-ribofuranosylbenzimidazole (3), and 2-chloro-5,6-diiodo-1-beta-D-ribofuranosylbenzimidazole (4). Similar deprotection of the alpha anomers (17a-c) resulted in a removal of the acetyl protecting groups and a concomitant cyclization to give the 2,2'-O-cyclonucleosides (18a-c). Most of the benzimidazole heterocycles, but not the difluoro **analog**, were active against human cytomegalovirus (HCMV) (IC50's = 3-40 microM) and herpes simplex **virus** type 1 (HSV-1) (IC50's = 50-90 microM). This activity, however, was not well separated from cytotoxicity, IC50's = 10-100 microM. The corresponding unsubstituted, the 5,6-dimethyl, and the 5,6-difluoro ribonucleosides (19, 20, and 2, respectively), were inactive against both viruses. Similar to the previously reported 2,5,6-trichloro **analog** (TCRB), the 5,6-dibromo **ribonucleoside** 3 was active against HCMV (IC50 approximately 4 microM) but more cytotoxic than TCRB. The 5,6-diiodo **analog** 4 also was active (IC50 approximately 2 microM) but more cytotoxic (IC50 = 10-20 microM) than either 3 or TCRB. The cyclonucleosides were inactive against both viruses and not cytotoxic, or slightly active with corresponding cytotoxicity. The order of activity against HCMV of the dihalobenzimidazole ribonucleosides was I approximately equal to Br approximately equal to CI > > F > H = CH3. The order of cytotoxicity among the most active compounds, however, was I > Br > Cl, thereby establishing that TCRB had the best antiviral properties.

5/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08972414 97210802

Synthesis and antiproliferative and antiviral activity of carbohydrate-modified pyrrolo[2,3-d]pyridazin-7-one nucleosides.

Meade EA; Wotring LL; Drach JC; Townsend LB
Department of Medicinal Chemistry, College of Pharmacy, University of Michigan, Ann Arbor 48109-1065, USA.

J Med Chem (UNITED STATES) Feb 28 1997, 40 (5) p794-801, ISSN 0022-2623 Journal Code: J0F
Contract/Grant No.: U19-AI-31718, AI, NIAID; N01-AI-72641, AI, NIAID
Languages: ENGLISH
Document type: JOURNAL ARTICLE

Sugar-modified **analogs** of 4-amino-1-(beta-D-ribofuranosyl)pyrrolo[2,3-d]pyridazin-7-one (1) and 4-amino-3-bromo-1-(beta-D-ribofuranosyl)pyrrolo[2,3-d]pyridazin-7- one (3) were prepared in an effort to obtain selective antiviral agents. Treatment of ethyl 3-cyano-1-(2,3,5-tri-O-benzyl-1-beta-D-arabinofuranosyl)pyrrole-2- carboxylate (6) with hydrazine afforded 4-amino-1-(2,3,5-tri-O-benzyl-1-beta-D- arabinofuranosyl)pyrrolo[2,3-d]pyridazin-7-one (7). Treatment of 7 with bromine afforded 4-amino-3-bromo-1-(2,3,5-tri-O-benzyl-beta-D-arabinofuranosyl) pyrrolo[2,3-d]pyridazin-7-one hydrobromide (9). The benzyl ether functions of 7 and 9 were removed with boron trichloride to afford 4-amino-1-(beta-D-arabinofuranosyl)pyrrolo[2,3-d]pyridazin-7-one (8) and its 3-bromo **analog** 10. 4-Amino-1-(2-deoxy-beta-D-erythro-pentofuranosyl)pyrrolo[2,3-d]pyrida zin-7

- one (13) was prepared by the sodium salt condensation of ethyl 3-cyanopyrrole-2-carboxylate (5) with 2-deoxy-3,5-di-O-p-toluoyl-alpha-D-erythro-pentofuranosyl chloride (11) followed by ring annulation with hydrazine. Deprotection of ethyl 3-cyano-1-(2-deoxy-3,5-di-O-p-toluoyl-beta-D-erythro-pentofuranosyl)pyrrole-2-carboxylate (12) using sodium ethoxide furnished ethyl 1-(2-deoxy-beta-D-erythro-pentofuranosyl)-3-cyanopyrrole-2-carboxylate (14) which served as the starting material for the preparation of 4-amino-1-(2,3-dideoxy-beta-D-glycero-pentofuranosyl)pyrrolo[2,3-d]pyridazin-7-one (20). Selective protection of the 5'-hydroxyl group of 14 with tert-butyldimethylsilyl chloride followed by a Barton type deoxygenation sequence of the 3'-hydroxyl groups afforded ethyl 3-cyano-1-[2,3-dideoxy-5-O-tert-butyldimethylsilyl)-beta-D-glycero-pentofuranosyl]pyrrole-2-carboxylate (18). Deprotection of 18 with tetra-n-butylammonium fluoride and ring annulation with hydrazine afforded 20. The acyclic **analog** 4-amino-1-[(1,3-dihydroxy-2-propoxy)methyl]pyrrolo[2,3-d]pyridazin-7-one (24) was prepared via the sodium salt glycosylation of 5 with (1,3-dihydroxy-2-propoxy)methyl bromide (22) followed by a ring annulation with hydrazine. N-Bromosuccinimide treatment of 13, 20, and 25 afforded the 3-bromo derivatives 15, 21, and 25. Evaluation of these compounds in L1210, HFF, and KB cells showed that the sugar-modified **analogs** all were less cytotoxic than their corresponding **ribonucleoside analogs**. The compounds also were less active against human cytomegalovirus (HCMV) and herpes simplex **virus** type 1 (HSV-1). The 3-bromo derivatives were much more active than the 3-unsubstituted **analogs** in both the cytotoxicity, and antiviral assays. However, there was only modest separation between activity against HCMV and cytotoxicity and there was virtually no selectivity for activity against HSV-1.

5/7/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08972412 97210800

Synthesis, antiproliferative and antiviral activity of imidazo[4,5-d]isothiazole nucleosides as 5:5 fused **analogs** of nebularine and 6-methylpurine **ribonucleoside**.

Swayze EE; Drach JC; Wotring LL; Townsend LB

Department of Chemistry, College of Literature, Sciences, and the Arts, University of Michigan, Ann Arbor 48109, USA.

J Med Chem (UNITED STATES) Feb 28 1997, 40 (5) p771-84, ISSN 0022-2623 Journal Code: J0F

Contract/Grant No.: NO1-AI72641, AI, NIAID; UO1-AI31718, AI, NIAID

Languages: ENGLISH

Document type: JOURNAL ARTICLE

A series of imidazo[4,5-d]isothiazole nucleosides related to the antibiotic nebularine and the highly cytotoxic 6-methyl-9-beta-D-ribofuranosylpurine have been synthesized from the corresponding heterocycles. The sodium salt glycosylation of the imidazo[4,5-d]isothiazoles proceeded smoothly, giving mixtures of N-4 and N-6 regioisomers in generally good yields. The protected derivatives were deblocked using standard conditions to afford the desired imidazo[4,5-d]-isothiazole nucleosides, usually as crystalline solids. None of the new nucleosides or heterocycles displayed selective activity against human cytomegalovirus (HCMV) or herpes simplex **virus** type 1 (HSV-1). The N-6 glycosylated imidazo[4,5-d]isothiazoles were completely inactive up to the highest concentration tested. The N-6 glycosylated imidazo[4,5-d]isothiazoles also were inactive in antiproliferative and cytotoxicity assays, except for 3-methyl-6-beta-D-ribofuranosylimidazo[4,5-d]isothiazole (15a) and 5-(benzylthio)-6-(2-deoxy-beta-D-ribofuranosyl)imidazo[4,5-d]isothiazole (5e), which showed moderate inhibition of L1210 cell growth. However, the heterocycles and several of the N-4 glycosylated derivatives were toxic to HFF, KB and L1210 cells; compounds with 5-benzylthio substituents were the most cytotoxic agents in this series.

5/7/9 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08612475 96264015
Inhibition of neurotropic mouse retrovirus replication in glial cells by synthetic oligo(2'-O-methyl)**ribonucleoside** phosphorothioates.
Takase-Yoden S; Shibahara S; Morisawa H; Watanabe R
Institute of Life Science, Soka University, Hachioji, Tokyo, Japan.
Antiviral Res (NETHERLANDS) Dec 1995, 28 (4) p359-68, ISSN 0166-3542
Journal Code: 6I7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Synthetic oligo(2'-O-methyl)**ribonucleoside** phosphorothioate, FS-25, which is complementary to the splicing acceptor site of neurotropic mouse retrovirus (FrC6 **virus**), and non-complementary **analogs** including 2'-O-methylinosine homo oligomer (MIS-25), both inhibited **viral** infection in glial cells. In addition, FS-25 and MIS-25 partially suppressed **viral** production of glial cells persistently infected with FrC6 **virus**. Both FS-25 and MIS-25 potently inhibited reverse transcriptase activity of the FrC6 **virus** in a cell-free system. Addition of these compounds before or after second-round infection of the FrC6 **virus** inhibited the accumulation of unintegrated **viral** DNA. These results indicate that these compounds fundamentally inhibit retrovirus production in glial cells in the same manner in which they inhibit HIV production, by blocking several **viral** replication pathways including fresh infection, second-round infection, and reverse transcription of the **viral** genome. Our novel neurotropic retrovirus is a useful experimental model for the development of drugs against HIV infection.

5/7/12 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06629901 90249588
The metabolism of ribavirin in erythrocytes and nucleated cells.
Page T; Connor JD
Department of Pediatrics, University of California, San Diego, La Jolla 92093.
Int J Biochem (ENGLAND) 1990, 22 (4) p379-83, ISSN 0020-711X
Journal Code: E4S
Languages: ENGLISH
Document type: JOURNAL ARTICLE
1. The metabolism of the broad-spectrum antiviral drug ribavirin was examined in intact human erythrocytes, cultured skin fibroblasts and EBV-transformed lymphoblasts. At an extracellular ribavirin concentration of 35 microM all the cell types produced ribavirin mono-, di- and triphosphate, with the nucleotide concentration reaching half-maximum in 210, 245 and 267 min for fibroblasts, lymphoblasts and erythrocytes, respectively. The ratio of mono-, di- and triphosphates was ca 4:1:40 in fibroblasts, 3:1:8 in lymphoblasts and 1:5:17 in erythrocytes. 2. When ribavirin was removed from the medium, the half-life of ribavirin nucleotides was less than 2 hr in fibroblasts and lymphoblasts, but greater than 24 hr in erythrocytes. 3. In energy-starved erythrocytes, the catabolism of ribavirin nucleotides closely followed the catabolism of adenine nucleotides. 4. None of these cell types excreted appreciable amounts of the ribavirin catabolites triazole carboxamide, triazole carboxylate or triazole carboxylate **ribonucleoside** . 5. Cells deficient in adenosine kinase produced greater than 4% of the ribavirin nucleotides of normal controls. 6. The nucleated cells quickly hydrolyzed ribavirin 5'monophosphate to ribavirin, whereas this activity was

negligible in erythrocytes.

5/7/13 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06253455 86111810
Inhibition of herpes simplex **virus** DNA polymerase by purine **ribonucleoside** monophosphates.
Frank KB; Cheng YC
J Biol Chem (UNITED STATES) Feb 5 1986, 261 (4) p1510-3, ISSN 0021-9258 Journal Code: HIV
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Purine **ribonucleoside** monophosphates were found to inhibit chain elongation catalyzed by herpes simplex **virus** (HSV) DNA polymerase when DNA template-primer concentrations were rate-limiting. Inhibition was fully competitive with DNA template-primer during chain elongation; however, DNA polymerase-associated exonuclease activity was inhibited noncompetitively with respect to DNA. Combinations of 5'-GMP and phosphonoformate were kinetically mutually exclusive in dual inhibitor studies. Pyrimidine nucleoside monophosphates and deoxynucleoside monophosphates were less inhibitory than purine riboside monophosphates. The monophosphates of 9-beta-D-arabinofuranosyladenine, Virazole (1-beta-D-ribofuranosyl-1,2,4-triazole-3-carboxamide), 9-(2-hydroxyethoxyme thyl)guanine, and 9-(1,3-dihydroxy-2-propoxymethyl)guanine exerted little or no inhibition. In contrast to HSV DNA polymerase, human DNA polymerase alpha was not inhibited by purine **ribonucleoside** monophosphates. These studies suggest the possibility of a physiological role of purine **ribonucleoside** monophosphates as regulators of herpesvirus DNA synthesis and a new approach to developing selective anti-herpesvirus compounds.

5/7/23 (Item 23 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04389382 83047099
Capacity of deoxycytidine to selectively antagonize cytotoxicity of 5-halogenated **analogs** of deoxycytidine without loss of antiherpetic activity.
Fox LM; Mekras JA; Bagwell CB; Greer SB
Antimicrob Agents Chemother (UNITED STATES) Sep 1982, 22 (3) p431-41, ISSN 0066-4804 Journal Code: 6HK
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Enzyme kinetic studies from this laboratory (M. Dobersen and S. Greer, Biochemistry 17:920-928, 1978) suggested that deoxycytidine could antagonize the toxicity of 5-halogenated **analogs** of deoxycytidine without interfering with their antiviral activity. Antagonism by deoxycytidine of the toxicity of 5-chlorodeoxycytidine without impairing its anti-herpes simplex **virus** type 2 activity is demonstrated in the present studies. Tetrahydrouridine, an inhibitor of cytidine deaminase, was utilized. The high Km for deoxycytidine (0.6 mM) with respect to the herpes pyrimidine nucleoside kinase as compared with the low Km for 5-chlorodeoxycytidine (1.1 microM) accounts for the absence of antagonism of the antiviral activity. The high Km for 5-chlorodeoxycytidine (56 microM) as compared with the low Km of deoxycytidine (2 microM) with respect to mammalian deoxycytidine kinase accounts, in great part, for the antagonism of toxicity. In addition, antagonism of toxicity by deoxycytidine is the result of factors other than the kinetic parameters of nucleoside kinases, as indicated by its antagonism of the cytotoxicity of 5-chlorodeoxyuridine. This may be attributed to replenishment of low dCTP

pools, diminished because of effector inhibition of **ribonucleoside** diphosphate reductase by Cl-dUTP. Resistance of the herpes-encoded enzymes to effector control may also play a role in the selective antagonism. Cell culture studies with high concentrations of tetrahydrouridine and 2'-deoxytetrahydrouridine suggest that competition by deoxycytidine for deaminases may not play a major role. The fact that deoxycytidine antagonizes the toxicity of chlorodeoxyuridine also argues against competition for the deaminases as a major reason for its effect. Limited studies with a topical herpes simplex **virus** type 2 infection system indicate heightened efficacy of 5-chlorodeoxycytidine (and tetrahydrouridine) when deoxycytidine is coadministered. The concepts of selective antagonism of a chemotherapeutic agent derived from these studies may be applied to other approaches that extent beyond **viral** chemotherapy.

5/7/26 (Item 26 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03239484 78130121
Termination of transcription by Escherichia coli RNA polymerase in vitro is affected by **ribonucleoside** triphosphate base **analogs**.
Neff NF; Chamberlin MJ
J Biol Chem (UNITED STATES) Apr 10 1978, 253 (7) p2455-60, ISSN 0021-9258 Journal Code: HIV
Languages: ENGLISH
Document type: JOURNAL ARTICLE

5/7/27 (Item 27 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03238086 78098423
Enzymology of cells infected with herpes simplex **virus**]
Enzimologiia kletok, infitsirovannykh virusom prostogo gerpesa.
Petrovich IuA; Terekhina NA
Vopr Virusol (USSR) Nov-Dec 1977, (6) p643-9, ISSN 0507-4088 Journal Code: XL8
Languages: RUSSIAN
Document type: JOURNAL ARTICLE

5/7/30 (Item 30 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03023674 76193626
Synthesis and biological studies of 3-(beta-D-ribofuranosyl)-2,3,-dihydro-6H-1,3-oxazine-2,6-dione, a new pyrimidine nucleoside **analog** related to uridine.
Chwang TL; Wood WF; Parkhurst JR; Nesnow S; Danenberg PV; Heidelberger C
J Med Chem (UNITED STATES) May 1976, 19 (5) p643-7, ISSN 0022-2623 Journal Code: JOF
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Reaction of the trimethylsilyl derivative of 2,3-dihydro-6H-1,3-oxazine-2,6-dione (2, "uracil anhydride") with protected 1-O-acetylribofuranoses in the presence of stannic chloride gave the corresponding block nucleosides. 3-(2,3-5-Tri-O-2',2',2'-trichloroethoxycarbonyl-beta-d-ribofuranosyl)-2,3-dihydro-6H-1,3-oxazine-2,6-dione (4c) thus prepared from the protected sugar 3c, 1-O-acetyl-2,3,5-tri-O-(2,2,2-trichloroethoxycarbonyl)ribofuranose, gave, on removal of the protecting groups with zinc dust,3-(beta-d-ribofuranosyl)-2,3-dihydro-6H-1,3-oxazine-2,6-dione (1). The

structure of 1 was confirmed by uv, ir, NMR, and CD spectral data and was shown to be an N nucleoside. Uracil anhydride, 2, and to a lesser extent, its **ribonucleoside** 1 exert a moderate growth inhibition of mouse leukemia L5178Y, HeLa, and Novikoff hepatoma cells i- culture. Both compounds produce weak inhibition of vaccinia **viral** replication in HeLa cells.

5/7/35 (Item 4 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

03038709 BIOSIS NO.: 000070064327
SYNTHESIS IN-VITRO OF THE FULL LENGTH COMPLEMENT OF DEFECTIVE INTERFERING PARTICLE RNA OF VESICULAR STOMATITIS **VIRUS**

AUTHOR: CHANDRA P K; KANG C Y; BANERJEE A K
AUTHOR ADDRESS: DEP. CELL. BIOL., ROCHE INST. MOL. BIOL., NUTLEY, N.J. 07110, USA.

JOURNAL: PROC NATL ACAD SCI U S A 77 (7). 1980. 3927-3931.
FULL JOURNAL NAME: Proceedings of the National Academy of Sciences of the United States of America
CODEN: PNASA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Under appropriate reaction conditions in vitro, 4 different defective-interfering particles of vesicular stomatitis **virus** synthesized the full-length complement of their RNA. The reaction involved preinitiation of the core particles with ATP and CTP, followed by RNA chain elongation in the presence of the .beta.,.gamma.-imido **analog** of ATP, AdoPP[NH]P [adenosine 5'-(.beta.-.gamma.-imido) triphosphate], and the 3 normal **ribonucleoside** triphosphates. By hybridization of the in vitro synthesized plus strand with the standard genome RNA followed by RNase treatment of the heteroduplexes, the RNA of a defective-interfering particle derived from the 3' end of the genome RNA was shown to have evolved by an internal deletion of the standard genome.

5/7/40 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

129104199 CA: 129(9)104199v PATENT
Enhanced suppression of HIV-1 by the combination of cytidine nucleoside analogs and CTP synthase inhibitors
INVENTOR(AUTHOR): Gao, Wen-yi; Johns, David G.; Mitsuya, Hiroaki; Marquez, Victor
LOCATION: USA
ASSIGNEE: United States Dept. of Health and Human Services
PATENT: PCT International ; WO 9831375 A1 DATE: 19980723
APPLICATION: WO 98US784 (19980120) *US 33918 (19970121)
PAGES: 47 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-031/70A; A61K-031/505B DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY ; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; HU; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE ; LS; MW; SD; SZ; UG; ZW; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG
SECTION:
CA201005 Pharmacology
CA263XXX Pharmaceuticals

IDENTIFIERS: cytidine nucleoside analog combination iviral HIV, CTP synthase inhibitor combination antiviral HIV
DESCRIPTORS:
Antiviral agents... Drug delivery systems... Drug resistance... Hepatitis B virus... Human immunodeficiency virus 1... Human immunodeficiency virus 2 ... Human T-lymphotropic virus 1... Human T-lymphotropic virus 2... Retroviridae... Simian immunodeficiency virus... Synergistic drug interactions...
cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase
Deoxyribonucleoside triphosphates...
pools; cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase
CAS REGISTRY NUMBERS:
65-46-3D analogs, cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase
7481-89-2 9039-45-6 9068-38-6 23205-42-7 90597-22-1 134678-17-4 cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase
3056-17-5 30516-87-1 69655-05-6 85326-06-3 147318-81-8 HIV resistant to; cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase
9023-56-7 inhibitors; cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase
365-08-2 1927-31-7 2056-98-6 2564-35-4 pool; cytidine nucleoside analog-CTP synthase inhibitor combination for inhibition of retrovirus or virus using reverse transcriptase

5/7/42 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

127288158 CA: 127(21)288158u PATENT
Method for inhibiting virus replication in mammalian cells using carbostyril derivatives
INVENTOR(AUTHOR): Gelfand, Erwin W.; Terada, Naohiro
LOCATION: Japan,
ASSIGNEE: Otsuka Pharmaceutical Co., Ltd.
PATENT: United States ; US 5670520 A DATE: 19970923
APPLICATION: US 619592 (19960326) *US 283707 (19940801) *WO 95US9141 (19950728)
PAGES: 38 pp. Cont.-in-part of U.S. 5,504,093. CODEN: USXXAM LANGUAGE: English CLASS: 514314000; A01N-043/42A
SECTION:
CA201005 Pharmacology
CA263XXX Pharmaceuticals
IDENTIFIERS: carbostyril deriv virus replication inhibition, nucleoside nucleobase transport inhibition carbostyril deriv, vesnarinone nucleoside nucleobase transport inhibition virucide, tablet vesnarinone virucide
DESCRIPTORS:
Drug interactions...
additive; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells, and combinations with other agents
Proteins(specific proteins and subclasses)...
BHRF-1; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
Antiviral agents... bcl-2 protein... BZLF1 transcription factor... Cell cycle... Cell proliferation... Deoxyribonucleoside triphosphates... DNA viruses... DNA... EBNA-2(antigen)... Human herpesvirus 1... Human herpesvirus 2... Human herpesvirus 3... Human herpesvirus 4... Human herpesvirus 5... Human herpesvirus 6... Human immunodeficiency virus 1...

Human immunodeficiency virus 2... Human immunodeficiency virus... Human T-lymphotropic virus... Nucleic acid bases... Nucleosides, biological studies... Phosphorylation(biological)... RNA viruses... RNA... Tablets(drug delivery systems)... Transport(biological)...
carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
Synergistic drug interactions...
carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells, and combinations with other agents
Antigens...
EA (early antigen), EA-D; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
Latent membrane protein...
LMP1; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
Nucleoside analogs...
phosphorylation; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
Proteins(specific proteins and subclasses)...
p24, HIV-1; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
Transcription factors...
R; carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
CAS REGISTRY NUMBERS:
50-89-5 58-61-7 66-22-8 73-24-5 biological studies, carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
58-32-2 58-96-8 70-51-9 316-46-1 365-07-1 365-08-2 491-97-4 1927-31-7 2056-98-6 2564-35-4 9002-06-6 29706-85-2 38966-21-1 81840-15-5 92586-35-1 106060-89-3 carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells
3056-17-5 7481-89-2 30516-87-1 59277-89-3 69655-05-6 82410-32-0 134678-17-4 carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells, and combinations with other agents
59-31-4D derivs., carbostyril derivs. for inhibiting nucleoside and nucleobase transport and virus replication in mammalian cells

5/7/43 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

120271046 CA: 120(21)271046p JOURNAL
(2R,4S,5S)-1-(Tetrahydro-4-hydroxy-5-methoxy-2-furanyl)thymine: a potent selective inhibitor of herpes simplex thymidine kinase
AUTHOR(S): Kim, Choung Un; Misco, Peter F.; Luh, Bing Y.; Terry, Brian; Bisacchi, Gregory; Mansuri, Muzammil M.
LOCATION: Bristol-Myers Squibb Pharm. Res. Inst., Wallingford, CT, 06492-7660, USA
JOURNAL: Bioorg. Med. Chem. Lett. DATE: 1993 VOLUME: 3 NUMBER: 8
PAGES: 1571-6 CODEN: BMCLE8 ISSN: 0960-894X LANGUAGE: English
SECTION:
CA233009 Carbohydrates
CA201XXX Pharmacology
IDENTIFIERS: thymidine analog prepn virucide, deoxyribonucleoside prepn virucide, glycal stereoselective oxidative addn alc, nucleoside deoxyribo prepn virucide
DESCRIPTORS:
Virucides and Virustats... Virus,animal...
inhibition of herpes simplex virus type 1 thymidine kinase by C-4 alkoxy thymidine analogs

Nucleosides,biological studies...
prepn. of C-4 alk[redacted] thymidine analogs as inhibito[redacted] of herpes simplex thymidine kinase
Addition reaction... Stereochemistry...
stereoselective oxidative addn. of alcs. to furanoid glycal nucleoside in prepn. of virucide C-4 alkoxy thymidine analogs
CAS REGISTRY NUMBERS:
154742-73-1P 154742-74-2P 154742-75-3P 154742-76-4P 154742-77-5P 154742-78-6P 154742-79-7P 154742-80-0P 154742-81-1P 154742-82-2P 154742-83-3P 154742-84-4P 154742-85-5P 154742-86-6P prepn. and inhibition of herpes simplex thymidine kinase by
154742-72-0 prepn. crystal structure of
9002-06-6 prepn. of (tetrahydrohydroxymethoxyfuranyl)thymines as inhibitors for
60-12-8 122-97-4 reactant, in prepn. of C-4 alkoxy thymidine analogs as inhibitors of herpes simplex thymidine kinase
37076-62-3 stereoselective oxidative addn. of alcs. to furanoid glycal nucleoside in prepn. of inhibitors of herpes simplex thymidine kinase

5/7/45 (Item 6 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

116050953 CA: 116(7)50953x JOURNAL
Susceptibility of a herpes simplex virus ribonucleotide reductase null mutant to deoxyribonucleosides and antiviral nucleoside analogs
AUTHOR(S): Yamada, Yoshinari; Yamamoto, Naohiko; Daikoku, Tohru; Nishiyama, Yukihiro
LOCATION: Sch. Med., Nagoya Univ., Nagoya, Japan, 466
JOURNAL: Microbiol. Immunol. DATE: 1991 VOLUME: 35 NUMBER: 8 PAGES: 681-6 CODEN: MIIMDV ISSN: 0385-5600 LANGUAGE: English
SECTION:
CA201005 Pharmacology
IDENTIFIERS: herpes virus ribonucleotide reductase antiviral nucleoside, deoxyribonucleoside herpes ribonucleotide reductase antiviral
DESCRIPTORS:
Nucleosides,analogs,biological studies...
antiviral, herpes simplex virus ribonucleotide reductase null mutant sensitivity to
Virucides and Virustats...
herpes simplex virus ribonucleotide reductase null mutant sensitivity to deoxyribonucleosides and nucleoside analogs as
Nucleosides,deoxyribo-,biological studies...
herpes simplex virus ribonucleotide reductase null mutant susceptibility to, as virucides
Virus,animal, herpes simplex 1...
ribonucleotide reductase null mutant, deoxyribonucleosides and antiviral nucleoside analog toxicity to
CAS REGISTRY NUMBERS:
127-07-1 147-94-4 605-23-2 5536-17-4 59277-89-3 77181-69-2 82410-32-0 138481-50-2 herpes simplex virus ribonucleotide reductase null mutant susceptibility to
9040-57-7 of herpes simplex virus null mutant, deoxyribonucleosides and antiviral nucleoside analogs toxicity to

5/7/60 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0206331 DBA Accession No.:·97-01452 PATENT
New oligonucleotides for inhibiting transcription of hepatitis C **virus** RNA - phosphorothioate oligonucleotide **analog** for use as a DNA probe for disease diagnosis or for use in disease and cancer

therapy
AUTHOR: Cook P D; Ho[redacted]G
CORPORATE SOURCE: Carlsbad, CA, USA.
PATENT ASSIGNEE: ISIS-Pharm. 1996
PATENT NUMBER: US 5576302 PATENT DATE: 961119 WPI ACCESSION NO.: 97-011289 (9701)
PRIORITY APPLIC. NO.: US 468447 APPLIC. DATE: 950606
NATIONAL APPLIC. NO.: US 468447 APPLIC. DATE: 950606
LANGUAGE: English
ABSTRACT: Oligonucleotides (5 DNA sequences disclosed) in which at least 75%, preferably 100%, of the nucleotides are joined by either Sp or Rp phosphorothioate 3' to 5' links are claimed. The oligonucleotides inhibit in vivo transcription of hepatitis C **virus** RNA, so are useful as therapeutic agents, diagnostic agents and research tools. Chirally pure phosphorothioate oligonucleotides can be used as therapeutic agents in the same way as racemic (or non-sulfur substituted) compounds, e.g. to treat AIDS, inflammation, cytomegalo **virus** infection and various cancers. Oligonucleotides with chirally pure intersugar links form heteroduplexes with target RNA or DNA of greater thermodynamic stability (compared with racemic mixtures) and elicit RNA-ase-H (EC-3.1.26.4) activity. They also have better nuclease resistance. 2'-**deoxyribonucleoside**-5'-O-(1-thiophosphate) is prepared as a racemic mixture and the pure Sp or Rp diastereomers isolated by e.g. reverse-phase HPLC on ODS Hypersil. The chiral products are used to make the claimed oligonucleotides enzymatically in the presence of template, primer and nuclease. The oligonucleotides may also be synthesized. (18pp)
? ds

Set	Items	Description
S1	871	RIBONUCLEOSIDE AND (ANALOG OR ANALOGS)
S2	276	S1 AND (VIRUS OR VIRAL)
S3	141	S2 AND (INCORPORATE OR INCORPORATION)
S4	77	S2 AND (MUTATION OR MUTATIONS OR MUTATE OR MUTATES)
S5	264	RD S2 (unique items)

? t s5/6/64-164

```
Logging in to Dialog

Trying 9158046...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ********
ENTER PASSWORD:
 t8401cpq
 ********
Welcome to DIALOG

Dialog level 99.01.29D

Last logoff:  03feb99 13:19:33
Logon file001 03feb99 13:51:40
***** The DIALORDER suppliers DYNAMIC and FILEDOC are no longer  *****
***** in business. Please do not use them.                       *****
*****                                                           *****
*****File 265:  Please use file 266 as file 265 is no longer     *****
*****  available.                                               *****
***** The MASIS DIALORDER service has been discontinued. For     *****
*****
***** details, please contact MARUZEN CO. LTD, at 3-3272-3496.   *****

*****                                                           *****
***** Files 100 and 552 have been removed from DIALOG.           *****
*****                                                           *****
***** NEW CURRENT year ranges installed dialog
.                          *****

File   1:ERIC  1966-1998/Dec
       (c) format only 1999 The Dialog Corporation
*File   1: In 1999, RIE and CIJE sections will be added separately,
as soon as they arrive. UDs may be irregular. UD codes will change.

      Set  Items  Description
      ---  -----  -----------
? b 410

>>>'IALOG' not recognized as set or accession number
? set hi ;set hi

       03feb99 13:51:48 User233835 Session D236.1
            $0.29    0.089 DialUnits File1
     $0.29  Estimated cost File1
            FTSNET   0.016 Hrs.
     $0.29  Estimated cost this search
     $0.29  Estimated total session cost   0.089 DialUnits

File 410:Chronolog(R)  1981-1999 Jan/Feb
       (c) 1999 The Dialog Corporation plc

      Set  Items  Description
      ---  -----  -----------
?
HILIGHT set on as ''
HILIGHT set on as ''
```

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? b 155,5, 399, 357, [redacted] 654

       03feb99 13:52:24 User233835 Session D236.2
            $0.00    0.056 DialUnits File410
     $0.00  Estimated cost File410
            FTSNET   0.010 Hrs.
     $0.00  Estimated cost this search
     $0.29  Estimated total session cost   0.145 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1999/Mar W4
         (c) format only 1999 Dialog Corporation
  File   5:BIOSIS PREVIEWS(R)  1969-1999/Jan W3
         (c) 1999 BIOSIS
  File 399:CA SEARCH(R)  1967-1999/UD=13005
         (c) 1999 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
  File 357:Derwent Biotechnology Abs  1982-1999/Feb B1
         (c) 1999 Derwent Publ Ltd
*File 357: Effective October 1, DialUnit rates adjusted for unrounding.
See HELP NEWS 357 for details.
  File 351:DERWENT WPI  1963-1998/UD=9904;UP=9904;UM=9904
         (c)1999 Derwent Info Ltd
*File 351: From UD=9901, UM= and UP= update codes will"jump ahead."
See HELP NEWS 351 for info on Alert problems in updates 9851 and 9901.
  File 654:US Pat.Full.  1990-1999/Jan 26
         (c) format only 1999 The Dialog Corp.
*File 654: Reassignment data now current through 08/20/98.
Reexamination, extension, expiration, reinstatement updated weekly.

      Set  Items  Description
      ---  -----  -----------
? s free(w)base

Processing
         1552826  FREE
         1492315  BASE
      S1   12256  FREE(W)BASE
? s s1 and (adenine or cytosine or guanine or uracil or thymine)

           12256  S1
           91089  ADENINE
           44167  CYTOSINE
           77170  GUANINE
           47663  URACIL
           21726  THYMINE
      S2     768  S1 AND (ADENINE OR CYTOSINE OR GUANINE OR URACIL OR
                  THYMINE)
? s s2 and (virus or viral)

             768  S2
          861523  VIRUS
          428212  VIRAL
      S3     379  S2 AND (VIRUS OR VIRAL)
? t s3/6/1-15


 3/6/1     (Item 1 from file: 155)
08371058   95357477
  DNA strand breakage is correlated with unaltered base release after gamma
irradiation.
Aug 1995
```

3/6/2 (Item 2 from file: 155)
07773802 93349332
Metabolism and pharmacokinetics of the anti-HIV-1-specific inhibitor [1-[2',5'-bis-O-(tert-butyldimethylsilyl)-beta-D-ribofuranosyl]-3-N- methyl -**thymine**]-3'-spiro-5''-(4''-amino-1'',2''-oxathiole-2'',2''-dio xide)
Jul 6 1993

3/6/3 (Item 3 from file: 155)
04504784 82142490
Effects of O2 on the reactions of activated bleomycin.
Apr 10 1982

3/6/4 (Item 1 from file: 5)
08933253 BIOSIS NO.: 199396084754
Metabolism and pharmacokinetics of the anti-HIV-1-specific inhibitor (1-(2',5'-BIS-O-(tert-butyldimethylsilyl)-beta-D ribofuranosyl)-3-N-methylthymine) 3'-spiro-5"-(4"-amino-1",2"-oxathiole-2",2"-dioxide).
1993

3/6/5 (Item 1 from file: 351)
011869525
WPI Acc No: 98-286435/199825
Title Terms: RIBONUCLEOSIDE; ANALOGUE; INCREASE; MUTANT; RATE; **VIRUS**; REDUCE; VIABLE; **VIRUS**; INHIBIT; **VIRUS**; REPLICA

3/6/6 (Item 2 from file: 351)
008014624
WPI Acc No: 89-279736/198939
Title Terms: PREPARATION; DI; DEOXY; DI; DEHYDRO; NUCLEOSIDE; HIGH; YIELD; USEFUL; ANTIVIRAL; ANTI; METABOLISM; ANTI; NEOPLASMS; AGENT; EFFECT; HIV
Index Terms/Additional Words: HUMAN; IMMUNO; DEFICIENT; **VIRUS**

3/6/7 (Item 3 from file: 351)
001850376
WPI Acc No: 77-71399Y/197740
Title Terms: ARABINO; FURANO; OXAZOLIDINE; PRODUCE; REACT; CYCLOCYTIDINE; HYDROGEN; SULPHIDE; SOLVENT; PRESENCE; AMINE

3/6/8 (Item 1 from file: 654)
02904347
HUMAN LIM PROTEINS
FULL TEXT: 2317 lines

3/6/9 (Item 2 from file: 654)
02904231
HUMAN PROTEIN KINASES
FULL TEXT: 2164 lines

3/6/10 (Item 3 from file: 654)
02904230
UBC7-LIKE UBIQUITIN-CONJUGATING ENZYME
FULL TEXT: 2080 lines

3/6/11 (Item 4 from file: 654)

02904219
HUMAN SIGMA RECEPTOR
FULL TEXT: 2038 lines

3/6/12 (Item 5 from file: 654)
02904217
DNA ENCODING A HUMAN MEMBRANE PROTEIN
FULL TEXT: 1753 lines

3/6/13 (Item 6 from file: 654)
02904190
HUMAN TRANSMEMBRANE 4 SUPERFAMILY PROTEIN
FULL TEXT: 2220 lines

3/6/14 (Item 7 from file: 654)
02901616
HUMAN SQUALENE EPOXIDASE
FULL TEXT: 2022 lines

3/6/15 (Item 8 from file: 654)
02901615
HUMAN ZINC BINDING PROTEINS
FULL TEXT: 2188 lines
? ds

Set	Items	Description
S1	12256	FREE(W)BASE
S2	768	S1 AND (ADENINE OR CYTOSINE OR GUANINE OR URACIL OR THYMINE)
S3	379	S2 AND (VIRUS OR VIRAL)

? t s3/7/1-7

3/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08371058 95357477
DNA strand breakage is correlated with unaltered base release after gamma irradiation.
Henle ES; Roots R; Holley WR; Chatterjee A
Division of Biochemistry and Molecular Biology, University of California, Berkeley 94720, USA.
Radiat Res (UNITED STATES) Aug 1995, 143 (2) p144-50, ISSN 0033-7587
Journal Code: QMP
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Unaltered base release is correlated with strand breakage for gamma-irradiated bacteriophage PM2 DNA in aqueous solution at pH 7.4. The yield of DNA strand breaks is determined by the agarose gel electrophoresis method. High-performance liquid chromatography (HPLC) is used to assay the release of unaltered nucleic bases. Previously reported HPLC methods have been updated. Unaltered base release is linear with dose up to 424 Gy, where up to 0.2% of all DNA bases are released. No detectable amounts of unaltered nucleosides are released and, besides unaltered bases, only one other product released from DNA is observed. Base release yields do not reflect the PM2 GC content of 43%. Only 76% of all prompt strand breaks appear to be associated with the release of an unaltered **free base**, whereby the **guanine**, **cytosine**, **adenine** and **thymine** yields are 9, 27, 18 and 22% of the prompt strand break

yield, respectively. Postirradiation incubation at 37 degrees C for 24 h increases the strand break yield 1.38-fold and the unaltered base release yield 1.76-fold such that 97% of the final strand breaks appear to be associated with the release of an unaltered base, whereby the **guanine**, **cytosine**, **adenine** and **thymine** yields are 10, 36, 23 and 28% of the final strand break yield, respectively. These data indicate that, given proper conditions, nearly every strand break leads to a base release. The bearing of these results on OH radical attack leading to strand breakage and base release is discussed.

3/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07773802 93349332
Metabolism and pharmacokinetics of the anti-HIV-1-specific inhibitor [1-[2',5'-bis-O-(tert-butyldimethylsilyl)-beta-D-ribofuranosyl]-3-N- methyl-**thymine**]-3'-spiro-5''-(4''-amino-1'',2''-oxathiole-2'',2''-dio xide)

Balzarini J; Naesens L; Bohman C; Perez-Perez MJ; San-Felix A; Camarasa MJ; De Clercq E
Rega Institute for Medical Research, Katholieke Universiteit Leuven, Belgium.
Biochem Pharmacol (ENGLAND) Jul 6 1993, 46 (1) p69-77, ISSN 0006-2952 Journal Code: 9Z4
Languages: ENGLISH
Document type: JOURNAL ARTICLE
1-[2',5'-Bis-O-(tert-butyldimethylsilyl)-beta-D-ribofuranosyl]-3-N- methyl-**thymine**]-3'-spiro-5''-(4''-amino-1'',2''-oxathiole-2'',2''- dioxide) (TSAO-m3T) is a potent, selective and specific inhibitor of human immunodeficiency **virus** type 1 replication in vitro. Uptake of TSAO-m3T by human CEM cells is drug concentration-dependent and increased proportionally with increasing initial extracellular TSAO-m3T concentrations up to 20 micrograms/mL. Within 6 hr of incubation, the cells were almost completely saturated with the test compound; further incubation up to 72 hr did not markedly increase the intracellular concentration of the compound. No intracellular metabolic conversion of TSAO-m3T was observed in CEM, MT-4 or MOLT-4 cells. Upon intravenous bolus administration of TSAO-m3T to mice at 0.75 mg/kg, TSAO-m3T was rapidly cleared from the plasma in a mono-exponential manner (half-life: 22 min; distribution volume: 9.5 L/kg; total body clearance: 17.8 L/hr/kg). TSAO-m3T mainly accumulated in the lungs, followed by the heart, kidney and liver. Significant amounts of different metabolites of TSAO-m3T were detected in most tissues, the liver, kidney and spleen being the organs that showed the most extensive metabolism. The principal metabolites identified were TSAO-m3T derivatives in which the t-butyldimethylsilyl moiety at C-2' and/or C-5' had been split off. The **free base** N3-methylthymine was not detected.

3/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04504784 82142490
Effects of O2 on the reactions of activated bleomycin.
Burger RM; Peisach J; Horwitz SB
J Biol Chem (UNITED STATES) Apr 10 1982, 257 (7) p3372-5, ISSN 0021-9258 Journal Code: HIV
Contract/Grant No.: HL-13399, HL, NHLBI; CA-15714, CA, NCI
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The antitumor drug, bleomycin, interacts with either Fe(II) and O 2 or Fe(III) and H2O2 to form an activated complex which attacks DNA. Under

aerobic conditions, both reactions yield similar quantities of free bases and products consisting of base plus deoxyribose carbon atoms 1 to 3. Under anaerobic conditions, activated bleomycin releases only **free base**. The yield of **free base** is the same under aerobic or anaerobic conditions, provided DNA is furnished in excess. When the DNA concentration is limiting, more base is released under anaerobic than under aerobic conditions. Drug self-destruction proceeds as quickly and completely in the presence or absence of O2.

3/7/4 (Item 1 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

08933253 BIOSIS NO.: 199396084754
Metabolism and pharmacokinetics of the anti-HIV-1-specific inhibitor (1-(2',5'-BIS-O-(tert-butyldimethylsilyl)-beta-D ribofuranosyl)-3-N-methylthymine) 3'-spiro-5"-(4"-amino-1",2"-oxathiole-2",2"-dioxide).

AUTHOR: Balzarini Jan(a); Naesens Lieve; Bohman Christina; Perez-Perez Maria-Jesus; San-Felix Ana; Camarasa Maria-Jose; De Clercq Erik
AUTHOR ADDRESS: (a)Rega Inst. Med. Res., Katholieke Univ. Leuven, B-3000 Leuven, Belgium

JOURNAL: Biochemical Pharmacology 46 (1):p69-77 1993
ISSN: 0006-2952
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT:
1-(2',5'-Bis-O-(tert-butyldimethylsilyl)-beta-D-ribofuranosyl)-3-N-methyl **-thymine**)-3'-spiro-5"-(4"-amino-1",2"-oxathiole-2",2"-dioxide) (TSAO-m-3T) is a potent, selective and specific inhibitor of human immunodeficiency **virus** type 1 replication in vitro. Uptake of TSAO-m-3T by human CEM cells is drug concentration-dependent and increased proportionally with increasing initial extracellular TSAO-m-3T concentrations up to 20 mu-g/mL. Within 6 hr of incubation, the celis were almost completely saturated with the test compound; further incubation up to 72 hr did not markedly increase the intracellular concentration of the compound. No intracellular metabolic conversion of TSAO-m-3T was observed in CEM, MT-4 or MOLT-4 cells. Upon intravenous bolus administration of TSAO-m-3T to mice at 0.75 mg/kg, TSAO-m-3T was rapidly cleared from the plasma in a mono-exponential manner (half-life: 22 min; distribution volume: 9.5 L/kg; total body clearance: 17.8 L/hr/kg). TSAO-m-3T mainly accumulated in the lungs, followed by the heart, kidney and liver. Significant amounts of different metabolites of TSAO-m-3T were detected in most tissues, the liver, kidney and spleen being the organs that showed the most extensive metabolism. The principal metabolites identified were TSAO-m-3T derivatives in which the t-butyldimethylsilyl moiety at C-2' and/or C-5' had been split off. The **free base** N-3-methylthymine was not detected.

3/7/5 (Item 1 from file: 351)
DIALOG(R)File 351:DERWENT WPI

011869525
WPI Acc No: 98-286435/199825
Use of ribonucleoside analogues - for increasing mutation rate of **virus** to reduce viability of **virus** and inhibit **viral** replication
Patent Assignee: UNIV WASHINGTON (UNIW)

Inventor: LOEB L A; MU[redacted]INS J I
Number of Countries: [redacted] Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
WO 9818324	A1	19980507	WO 97US19670	A	19971027	A01N-043/04	199825 B
AU 9850959	A	19980522	AU 9850959	A	19971027	A01N-043/04	199840

Priority Applications (No Type Date): US 9740535 A 19970227; US 9629404 A 19961028

Patent Details:

Patent	Kind	Lan	Pg	Filing Notes	Application	Patent
WO 9818324	A1	E	59			

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9850959	A			Based on		WO 9818324

Abstract (Basic): WO 9818324 A

Method (A) for increasing the mutation rate of a **virus** comprises administering an RNA nucleoside analogue to a virally infected cell.

The analogue is incorporated by a polymerase into an RNA copy of a genomic nucleic acid encoding the **virus**. The analogue replaces a first natural occurring nucleotide having a first complementary nucleotide where the analogue complements a second nucleotide which is other than the first nucleotide, thereby inducing the **virus** to mutate.

Also claimed are:

(1) a retroviral particle (RP) comprising an RNA nucleoside analogue;

(2) a population of cells comprising a highly variable population of replicated homologous **viral** nucleic acids;

(3) a cell comprising a **viral** genomic nucleic acid, an RNA analogue, a cellular mRNA analogue and a **viral** genomic RNA analogue;

(4) a method (B) for detecting the mutagenic potential of a ribonucleoside analogue (RA) comprising integrating the RA into a **viral** RNA synthesised by a polymerase, and determining whether the incorporation causes a mutation in a progeny **virus**;

(5) a method (C) for screening for a RA which is incorporated by a cellular polymerase, comprising incubating the cellular polymerase with the RA in the presence of a nucleic acid template, and detecting whether the RA is polymerised;

(6) a pharmaceutical composition comprising a dose of an RNA nucleoside analogue as described in (A);

(7) a method (D) for increasing the mutation rate of a **virus** in an animal comprising administering a mutagenic RA;

(8) a library of nucleoside analogues, where each comprises a random chemical substituent linked to a group consisting of uridine, cytidine, guanosine, adenosine, N4-amino-cytidine, N1-methyl-N4-amino-cytidine, 3,N4-etheno-cytidine, 3-methylcytidine, 5-hydroxycytidine, N4-dimethyl-cytidine, 5-(2-hydroxyethyl) cytidine, 5-chloro-cytidine, 5-bromocytidine, N4-methyl-N4-amino-cytidine , 5-amino-cytidine , 5-nitroso-cytidine, 5-(hydroxyalkyl) cytidine, 5-(thioalkyl)-cytidine and cytidine glycol, 5-hydroxyuridine, 3-hydroxyethyl-uridine , 3 -methyluridine , O2-methyluridine, O2-ethyluridine, 5-amino-uridine, O4-methyluridine, O4-ethyluridine, O4-isobutyl-uridine , O4-alkyl-uridine, 5-nitroso-uridine, 5-hydroxyalkyl)-uridine, and 5-(thioalkyl)-uridine, 1,N6-etheno-adenosine, 3-methyladenosine, and N6-methyladenosine, 8-hydroxy-guanosine, O6 methylguanosine, O6-ethyl-guanosine, O6-isopropyl-guanosine, 3,N2-etheno-guanosine, O6 alkyl-guanosine,

8-oxo-guanosine, 2,N3-etheno-guanosine, and 8 -amino-guanosine9) a method (E) for identifying a mutagenic RA comprising:

(a) providing RAs;

(b) incorporating a portion of the RAs into a ribonucleoside polymer using a RNA polymerase;

(c) isolating the ribonucleoside polymer, and

(d) determining the chemical composition of a RA which is incorporated into the ribonucleoside polymer;

(10) a method (F) for making a mutagenic RA comprising:

(a) chemically modifying a nucleotide analogue selected from analogues as in (8) to yield a chemically modified RA;

(b) determining whether the chemically modified analogue is incorporated by an RNA polymerase into a polyribonucleotide molecule, and

(c) measuring the mutagenic potential of the chemically modified analogue;

(11) a kit comprising a container and one or more of the following components: a control mutagenic RNA analogue, a test mutagenic RNA analogue, an RNA polymerase, reagents for detecting incorporation of the RNA analogue by the RNA polymerase, and instructions in the use of the kit components for detecting the mutagenic potential of the test mutagenic analogue as compared to the control mutagenic RNA analogue;

(12) a method (F) for increasing the mutation rate of a **virus** in an animal comprising administering a RA to a virally infected cell, where the analogue is incorporated by a polymerase into an RNA copy of a genomic nucleic acid encoding the **virus**, the analogue replacing a first natural occurring nucleotide having a first complementary nucleotide where the analogue complements a second nucleotide which is other than the first nucleotide, in combination with a drug that reduces the concentration of the first natural occurring nucleotide, and

(13) a method (G) for increasing the mutation rate of a **virus** comprising administering a **free base** selected from **adenine**, **cytosine**, **guanine**, **uracil** and **thymine** to a virally infected cell, where the base in incorporated by a polymerase into an RNA or DNA copy of a genomic nucleic acid encoding the **virus**, the base replacing a first natural occurring nucleotide having a first complementary nucleotide where the base complements a second nucleotide which is other than the first nucleotide, thereby inducing the **virus** to mutate.

USE - The methods can be used to increase the mutation rate of viruses to reduce the viability of progeny generations of the **virus**, thereby inhibiting **viral** replication. They can be used to inhibit **viral** replication by **virus** such as hepatitis A, B, C, D, E and G, flaviviruses such as dengue fever and yellow fever, filoviruses such as ebola **virus**, influenza viruses, parainfluenza viruses, including respiratory syncytial **virus**, measles, mumps, the picornaviruses, including the rhinoviruses, the togaviruses, including encephalitis, corona viruses, rubella, bunyaviruses, including hantaviruses, reoviruses, including rotaviruses, rhabdoviruses, arenaviruses such as lymphocytic chorio-meningitis, the human T-cell leukaemia (HTLV) viruses such as HTLV-1 and HTLV-2, adult T cell leukaemia (ATL), HIV-1 and HIV-2, simian immunodeficiency **virus** (SIV), feline leukaemia **virus**, feline immunodeficiency **virus** or vesicular stomatitis **virus**.

Dwg.0/3

Derwent Class: B04; D16

International Patent Class (Main): A01N-043/04

International Patent Class (Additional): A61K-031/70; C12N-007/04; C12N-007/06; C12Q-001/68; C12Q-001/70

3/7/6 (Item 2 from file: 351)

DIALOG(R)File 351:DERWENT WPI

008014624
WPI Acc No: 89-279736/198939
Prepn. of 2',3''-dideoxy didehydronucleoside(s) in high yields - useful as antiviral, anti-metabolic and anti-neoplastic agents, esp. effective against HIV
Patent Assignee: BRISTOL-MYERS SQUIBB CO (BRIM); BRISTOL-MYERS CO (BRIM)
Inventor: FULLER C E; HOWELL H G; MANSURI M M; MARTIN J C; STARRETT J E
Number of Countries: 023 Number of Patents: 031
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
EP 334368	A	19890927	EP 89105269	A	19890323		198939 B
AU 8931673	A	19890928					198947
NO 8901208	A	19891016					198947
DK 8901464	A	19890925					198948
PT 90099	A	19891110					198950
FI 8901338	A	19890925					199002
US 4904770	A	19900227	US 88173473	A	19880324		199015
JP 2149595	A	19900608	JP 8971592	A	19890323		199029
NO 9103456	A	19890925					199202
NO 9103457	A	19890925					199202
NO 9103458	A	19890925					199202
NO 9103459	A	19890925					199202
ZA 8902166	A	19920226	ZA 892166	A	19890322		199213
US 5130421	A	19920714	US 88173473	A	19880324	C07H-017/00	199231
			US 89441023	A	19891124		
			US 91697512	A	19910429		
EP 334368	A3	19911227	EP 89105269	A	19890323		199250
NO 171367	B	19921123	NO 891208	A	19890320	C07H-019/06	199301
NO 172345	B	19930329	NO 891208	A	19890320	C07H-019/06	199318
			NO 913456	A	19910903		
US 5212294	A	19930518	US 88173473	A	19880324	C07H-017/00	199321
			US 89441023	A	19891124		
			US 91697512	A	19910429		
			US 92860938	A	19920331		
FI 9400103	A	19940110	FI 891338	A	19890321	C07H-000/00	199412
			FI 94103	A	19940110		
IL 105572	A	19940412	IL 105572	A	19890321	C07D-405/04	199422
IL 105573	A	19940412	IL 105573	A	19890321	C07D-473/00	199422
IL 105571	A	19940530	IL 105571	A	19890321	C07D-405/04	199424
IL 105570	A	19940826	IL 105570	A	19890321	C07D-405/04	199435
IL 89693	A	19940826	IL 89693	A	19890321	C07D-405/04	199435
FI 93111	B	19941115	FI 891338	A	19890321	C07D-405/04	199445
FI 9405698	A	19941202	FI 94103	A	19940110	C07H-000/00	199510
			FI 945698	A	19941202		
FI 9405699	A	19941202	FI 94103	A	19940110	C07H-000/00	199510
			FI 945699	A	19941202		
FI 9405700	A	19941202	FI 94103	A	19940110	C07H-000/00	199510
			FI 945700	A	19941202		
CA 1339448	C	19970909	CA 593738	A	19890315	C07H-019/04	199749
CA 1339483	C	19970930	CA 593738	A	19890315	C07H-019/04	199801
			CA 617047	A	19960321		
CA 1339861	C	19980512	CA 593738	A	19890315	C07H-019/04	199830
			CA 616776	A	19931206		

Priority Applications (No Type Date): US 88173473 A 19880324; US 89441023 A 19891124; US 91697512 A 19910429; US 92860938 A 19920331
Cited Patents: No-SR.Pub; 9.Jnl.Ref; DE 1695445
Patent Details:

Patent	Kind	Lan	Pg	Filing Notes	Application	Patent
EP 334368	A	E	22			
Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE						
US 4904770	A		11			

ZA 8902166	A	47			
US 5130421	A	11	ex	US 88173473	
			Cont of	US 89441023	
			Div ex		US 4904770
NO 171367	B		Previous Publ.		NO 8901208
NO 172345	B		Div ex	NO 891208	
			Previous Publ.		NO 9103456
US 5212294	A	11	Div ex	US 88173473	
			Cont of	US 89441023	
			Div ex	US 91697512	
			Div ex		US 4904770
			Div ex		US 5130421
FI 9400103	A		Div ex	FI 891338	
IL 105572	A		Div ex		IL 89693
IL 105573	A		Div ex		IL 89693
IL 105571	A		Div ex		IL 89693
IL 105570	A		Div ex		IL 89693
FI 93111	B		Previous Publ.		FI 8901338
FI 9405698	A		Div ex	FI 94103	
FI 9405699	A		Div ex	FI 94103	
FI 9405700	A		Div ex	FI 94103	
CA 1339483	C		Div ex	CA 593738	
CA 1339861	C		Div ex	CA 593738	

Abstract (Basic): EP 334368 A

In a process for producing a 2', 3'-dideoxy-2', 3'-didehydronucleoside of formula (I) comprising: (a) converting a 2'-deoxynucleoside of formula (II) to a reactive 3', 5'-anhydro-2'-deoxynucleoside intermediate of formula (III), and (b) converting (III) to (I) in the presence of a strong base, the improvement comprises (i) reacting (III) with KOC(CH3)3, n-BuLi, or LDA in the presence of a polar solvent selected from DMSO, THF, DMF and/or DME, (ii) triturating the resulting salt in the presence of an organic solvent, (iii) collecting the solid crude salt, dissolving in water and neutralising to obtain the solid nucleoside **free base** prod.

The base moiety= opt. substd. base consisting pyrimidaine, aza-pyrimidine and deaza-pyrimidine, X and Z=N or Ch; Y=CR5 or N; R4 = OH or Nh2; R5 = H; opt. halo-substd. alkyl of formula CnH2nA; opt. halo-substd. alkenyl of formula (CH2)mCH=CHA; m=0-3; n=1-3; A=H, F, Cl, Br or I.

Also claimed is the prepn. of (I) comprising (a) converting (II) to an intermediate of formula (IV);. Also claimed is the prepn. of (I) from starting material (VI), where B is the nucleotide base.

Dwg.0/0

Abstract (Equivalent): US 5130421 A

Prodn. of 2',3'-dideoxy-2',3' -didehydronucleosides of formula (I) comprises preparing a 3',5'-anhydro-2'-deoxynucleoside intermediate of formula (II) and reacting this with a strong base. The process is improved by: (a) reacting (II) with a strong base chain from KOtBu, nBuLi, NaH and LDA in the presence of DMSO, THF, DMF or DME; (b) triturating the salt produced in the presence of an organic salt; (c) collecting the solid crude salt intermediate produced and dissolving it in water; and (d) neutralising it to give (I).

In (I) the base moiety is pyrimidine or aza- or diazapyrimidine, all opt. substd. X = N or CH. Y = CR5 or N. Z = CH or N. R4 = OH or NH2. R5 = H, CnH2nA or (CH2)mCH=CHA. m = 0-3. n = 1-3. A = H, F, C, Br or I.

USE - (I) have antiviral, antimetabolic and antineoplastic activity. They are also active in HIV. (Dwg.0/0)

US 4904770 A

2',3'-Dideoxy-2',3' -didehydronucleoside of formula (I) is produced, by (a) reacting a ribonucleoside of formula (II) with acyloxyisobutyryl bromide in a polar solvent under anhydrous conditions at 75-100 deg.C for 1-3 hrs. to form intermediates of formula (III); (b) eliminating using an aprotic polar solvent contg. Zn/Cu reagent; and (c) deprotecting 5'-O-protecting gp. using a mild base to form

prod. B is **uracil** [redacted] 5-**methyluracil**; R is acyloxyisobutyryl [redacted] d R' is the acyl gp. of acyloxyisobutyryl bromide.

USE - As antiviral agents, esp. against human immunodeficiency viruses (HIV). (11pp)i

Derwent Class: B03
International Patent Class (Main): C07D-405/04; C07D-473/00; C07H-000/00; C07H-017/00; C07H-019/06
International Patent Class (Additional): A61K-031/50; C07D-473/02; C07D-473/34; C07H-019/00; C07H-019/04; C07H-019/07

3/7/7 (Item 3 from file: 351)
DIALOG(R)File 351:DERWENT WPI
(c)1999 Derwent Info Ltd. All rts. reserv.

001850376
WPI Acc No: 77-71399Y/197740
Arabino-furano-thion-oxazolidine prodn. - by reacting cyclocytidine with hydrogen sulphide in solvent in presence of amine
Patent Assignee: UEDA T (UEDA-I)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
JP 52100489 A		19770823					197740 B

Priority Applications (No Type Date): JP 7617117 A 19760220

Abstract (Basic): JP 52100489 A

Prodn. of 2-thio-beta-D-arabinofuranol 1',2]:4,5 -2-oxazolidine (I) comprises reacting O2,2'-cyclocytidine (II) with H2S in solvent in the presence of an amine. (II) may be used as the **free base** or as acid addn. salts of HCl, HBr, HI, H2SO4, HClO4, MsOH, p-TsOH or PhSO3H.

Reaction is e.g. in DMFA, DMAC, HMPA, DMSO, dioxane, ethylene glycol, diethylene glycol or a mixt. Tertiary amine e.g. Et3N, Me3N, Bu3N, pyridine, picoline, lutidine is used at 0-100 degrees C pref. 50-80 degrees C for 2 hrs. to 5 days. H2S may be added as gas or liquid.

(I) is an intermediate for pharmacologically active antimetabolites, such as arabino-type or anhydro-type nucleosides. (I) may be converted via 5 steps into an anti-**viral** agent arabino-**furanosyladenine** in 39% yield.

Derwent Class: B02
International Patent Class (Additional): C07H-009/06
? ds

Set	Items	Description
S1	12256	FREE(W)BASE
S2	768	S1 AND (ADENINE OR CYTOSINE OR GUANINE OR URACIL OR THYMINE)
S3	379	S2 AND (VIRUS OR VIRAL)

? s s3 and (mutation or mutate)

	379	S3
	348473	MUTATION
	1207	MUTATE
S4	169	S3 AND (MUTATION OR MUTATE)

? t s4/6/1-7

4/6/1 (Item 1 from file: 351)
011869525
WPI Acc No: 98-286435/199825

Title Terms: RIBONUCLEOSIDE; ANALOGUE; INCREASE; MUTANT; RATE; **VIRUS**; REDUCE; VIABLE; **VIRUS**; INHIBIT; **VIRUS**; REPLICA

4/6/2 (Item 1 from file: 654)
02904347
HUMAN LIM PROTEINS
FULL TEXT: 2317 lines

4/6/3 (Item 2 from file: 654)
02904231
HUMAN PROTEIN KINASES
FULL TEXT: 2164 lines

4/6/4 (Item 3 from file: 654)
02904230
UBC7-LIKE UBIQUITIN-CONJUGATING ENZYME
FULL TEXT: 2080 lines

4/6/5 (Item 4 from file: 654)
02904219
HUMAN SIGMA RECEPTOR
FULL TEXT: 2038 lines

4/6/6 (Item 5 from file: 654)
02904217
DNA ENCODING A HUMAN MEMBRANE PROTEIN
FULL TEXT: 1753 lines

4/6/7 (Item 6 from file: 654)
02904190
HUMAN TRANSMEMBRANE 4 SUPERFAMILY PROTEIN
FULL TEXT: 2220 lines
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03feb99 13:58:24 User233835 Session D236.3
$0.81 0.269 DialUnits File155
$0.00 3 Type(s) in Format 6
$0.60 3 Type(s) in Format 7
$0.60 6 Types
$1.41 Estimated cost File155
$0.89 0.170 DialUnits File5
$0.00 1 Type(s) in Format 6
$1.55 1 Type(s) in Format 7
$1.55 2 Types
$2.44 Estimated cost File5
$2.96 0.252 DialUnits File399
$2.96 Estimated cost File399
$0.43 0.049 DialUnits File357
$0.43 Estimated cost File357
$4.45 0.274 DialUnits File351
$2.86 1 Type(s) in Format 2
$0.00 4 Type(s) in Format 6
$7.10 2 Type(s) in Format 7
$9.96 7 Types
$14.41 Estimated cost File351
$3.15 0.573 DialUnits File654
$0.00 14 Type(s) in Format 6
$0.00 14 Types
$3.15 Estimated cost File654

OneSearch, [redacted] files, 1.588 DialUnits File[redacted]
FTSNET [redacted] 6 Hrs.
$24.80 Estimated cost this search
$25.09 Estimated total session cost 1.733 DialUnits
Logoff: level 99.01.29 D 13:58:25

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Trying 9351006...Open

Logging in to Dialog

Trying 9158046...Open

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STN Express timed out waiting for host response.

Logging in to Dialog

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DIALOG INFORMATION SERVICES
PLEASE LOGON:
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ENTER PASSWORD:
t8401cpq
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Welcome to DIALOG

Dialog level 99.01.29D

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Logon file001 10feb99 11:03:15
ANNOUNCEMENT **** ANNOUNCEMENT **** ANNOUNCEMENT
NEW
***Financial Times Abstracts - January 4, 1999
***MediConf (File 431) - December 1, 1998
***
RELOADED
***EMBASE (Files 72,73)
***CLAIMS/U.S. Patents (340, 341, 942)
***BIOSIS Previews (File 5,55)- enhanced 11/16/98, see HE dialog
LP NEWS5
***Claims Reassignment/Reexamination (File 123)
***
REMOVED
***Disclosure Database, File 100, removed 1/31/99
***Technimetrics Executive Directory, File 552,
removed effective 1/31/99
***Hoppenstedt Dir of German Companies removed
effective 12/31/98
***

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DIALINDEX
***DIALINDEX categori[redacted]ave been revised. For listing[redacted] new/revised
   categories see http://library.dialog.com/bluesheets/html/blo.html.
   For more details, see HELP NEWS411.

     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<
***** The DIALORDER suppliers DYNAMIC and FILEDOC are no longer  *****
***** in business. Please do not use them.                      *****
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*****File 265:  Please use file 266 as file 265 is no longer    *****
*****  available.                                               *****
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***** Files 100 and 552 have been removed from DIALOG.          *****
*****                                                           *****
***** NEW CURRENT year ranges installed.                        *****

File   1:ERIC  1966-1999/Feb
       (c) format only 1999 The Dialog Corporation
*File   1: In 1999, RIE and CIJE sections will be added separately,
as soon as they arrive. UDs may be irregular. UD codes will change.

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     $2.13  Estimated total session cost   0.654 DialUnits

File 410:Chronolog(R)  1981-1999 Jan/Feb
       (c) 1999 The Dialog Corporation plc

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     $0.00  Estimated cost File410
            FTSNET   0.033 Hrs.
     $0.00  Estimated cost this search
     $2.13  Estimated total session cost   0.820 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1999/Mar W4
         (c) format only 1999 Dialog Corporation
  File   5:BIOSIS PREVIEWS(R)  1969-1999/Jan W3
         (c) 1999 BIOSIS
  File 399:CA SEARCH(R)  1967-1999/UD=13006
         (c) 1999 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
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  File 357:Derwent Biotechnology Abs  1982-1999/Feb B1
        (c) 1999 Derwent Publ Ltd
*File 357: Effective October 1, DialUnit rates adjusted for unrounding.
See HELP NEWS 357 for details.
  File 351:DERWENT WPI  1963-1998/UD=9906;UP=9906;UM=9906
        (c)1999 Derwent Info Ltd
*File 351: From UD=9901, UM= and UP= update codes will"jump ahead."
See HELP NEWS 351 for info on Alert problems in updates 9851 and 9901.
  File 654:US Pat.Full.  1990-1999/Feb 02
        (c) format only 1999 The Dialog Corp.
*File 654: Reassignment data now current through 08/20/98.
Reexamination, extension, expiration, reinstatement updated weekly.

      Set  Items  Description
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? s (RNA(w)analog) or (RNA(w)nucleoside(w)analog)

          685006  RNA
          264852  ANALOG
             111  RNA(W)ANALOG
          685006  RNA
           62670  NUCLEOSIDE
          264852  ANALOG
               4  RNA(W)NUCLEOSIDE(W)ANALOG
      S1     115  (RNA(W)ANALOG) OR (RNA(W)NUCLEOSIDE(W)ANALOG)
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>>>Duplicate detection is not supported for File 654.

>>>Records from unsupported files will be retained in the RD set.
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...examined 50 records  (100)
...completed examining records
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? s s2 and (virus or viral)

<------User Break------>
u!


? s s2 and (virus or viral or HIV)

             101  S2
          861992  VIRUS
          428494  VIRAL
          187045  HIV
      S4      38  S2 AND (VIRUS OR VIRAL OR HIV)
? s s2 not s4

             101  S2
              38  S4
      S5      63  S2 NOT S4
? ds


Set     Items   Description
S1        115   (RNA(W)ANALOG) OR (RNA(W)NUCLEOSIDE(W)ANALOG)
S2        101   RD (unique items)
S3         37   S2 AND (VIRUS OR VIRAL)
S4         38   S2 AND (VIRUS OR VIRAL OR HIV)
S5         63   S2 NOT S4
? t s4/6/1-38
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4/6/1 (Item 1 from file: 155)
08749467 96357031
RNA replication by a respiratory syncytial **virus** **RNA** **analog** does not obey the rule of six and retains a nonviral trinucleotide extension at the leader end.
Aug 1996

4/6/2 (Item 2 from file: 155)
08414101 95287469
Vesicular stomatitis **virus** infection induces a nuclear DNA-binding factor specific for the interferon-stimulated response element.
Jul 1995

4/6/3 (Item 3 from file: 155)
08255675 95156568
Mokola **virus** glycoprotein and chimeric proteins can replace rabies **virus** glycoprotein in the rescue of infectious defective rabies **virus** particles.
Mar 1995

4/6/4 (Item 4 from file: 155)
06820102 92037602
Conformational studies on a peptide fragment representing the RNA-binding N-terminus of a **viral** coat protein using circular dichroism and NMR spectroscopy.
Oct 15 1991

4/6/5 (Item 5 from file: 155)
04405479 83285336
Evidence that a nucleotide sequence, "boxA," is involved in the action of the NusA protein.
Aug 1983

4/6/6 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA

4/6/7 (Item 2 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Rescue of synthetic helper-dependent analogs of the genomic RNAs of respiratory syncytial virus and parainfluenza virus type 3

4/6/8 (Item 3 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Rescue of a 7502-nucleotide (49.3% of full-length) synthetic analog of respiratory syncytial virus genomic RNA

4/6/9 (Item 4 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Duplex-forming polynucleotide conjugates

4/6/10 (Item 5 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Hybridization assay using midivariant RNA analogs and Q.beta. replicase

4/6/11 (Item 6 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Rous sarcoma virus. Effects of nucleoside analogs on virus synthesis

4/6/12 (Item 7 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Thermal activation of the antiviral activity of synthetic double-stranded polyribonucleotides

4/6/13 (Item 1 from file: 357)
0121595 DBA Accession No.: 91-09237
Modified oligonucleotide analogs containing novel linkages - which modulate gene expression in therapy and diagnosis of **virus** and bacterium disease and tumor cell growth 1991

4/6/14 (Item 1 from file: 654)
02901621
CAPPED SYNTHETIC RNA, ANALOGS, AND APTAMERS
FULL TEXT: 1114 lines

4/6/15 (Item 2 from file: 654)
02895559
COMPOSITIONS AND METHODS OF DEVELOPING OLIGONUCLEOTIDES AND OLIGONUCLEOTIDE ANALOGS HAVING ANTIVIRAL ACTIVITY
FULL TEXT: 1131 lines

4/6/16 (Item 3 from file: 654)
02881864
COMPOSITIONS AND METHODS FOR TREATING AND PREVENTING PATHOLOGIES INCLUDING CANCER
FULL TEXT: 7541 lines

4/6/17 (Item 4 from file: 654)
02881621
PREVENTION OF **VIRAL** INFECTION BY THE INDUCTION OF APOPTOSIS AND/OR THE USE OF AN ANTIVIRAL GENE, HEM1
FULL TEXT: 1410 lines

4/6/18 (Item 5 from file: 654)
02835669
METAL COMPLEXES OF TEXAPHYRINS
FULL TEXT: 1909 lines

4/6/19 (Item 6 from file: 654)
02822727
STRANDED RNA **VIRUS** PARTICLES
FULL TEXT: 2015 lines

4/6/20 (Item 7 from file: 654)
02782328
METHODS OF PRODUCING SECRETED RECEPTOR ANALOGS AND BIOLOGICALLY ACTIVE DIMERIZED POLYPEPTIDE FUSIONS
FULL TEXT: 4198 lines

4/6/21 (Item 8 from file: 654)
02767376
REAGENTS AND METHODS FOR MODULATING GENE EXPRESSION THROUGH RNA MIMICRY
FULL TEXT: 1542 lines

4/6/22 (Item 9 from file: 654)
02745541
PREVENTION AND TREATMENT OF RESPIRATORY TRACT DISEASE
FULL TEXT: 994 lines

4/6/23 (Item 10 from file: 654)
02742745
RNA PHOTOCLEAVAGE USING TEXAPHYRINS
FULL TEXT: 1805 lines

4/6/24 (Item 11 from file: 654)
02740195
OLIGORIBONUCLEOTIDE ASSAYS FOR NOVEL ANTIBIOTICS
FULL TEXT: 1215 lines

4/6/25 (Item 12 from file: 654)
02730042
SOLID PHASE SYNTHESIS OF OLIGONUCLEOTIDES WITH STEREOSPECIFIC SUBSTITUTED PHOSPHONATE LINKAGES BY PENTAVALENT GRIGNARD COUPLING
FULL TEXT: 1540 lines

4/6/26 (Item 13 from file: 654)
02727172
STRATEGY FOR THE PRODUCTION OF RNA FROM IMMOBILIZED TEMPLATES
[Contacting with transcription mixture comprising a buffer, nucleoside triphosphates and an RNA polymerase; produces RNA having a sequence complementary to coding strand]
FULL TEXT: 860 lines

4/6/27 (Item 14 from file: 654)
02668496
NUCLEIC ACID PROBES FOR THE DETECTION OF SHIGELLA
[Gastrointestinal disorders]
FULL TEXT: 4987 lines

4/6/28 (Item 15 from file: 654)
02651428
FLUORESENCE DETECTION USING TEXAPHYRINS
FULL TEXT: 2532 lines

4/6/29 (Item 16 from file: 654)
02640819
RADIATION SENSITIZATION USING TEXAPHYRINS
[Treatment of neoplasm or atheroma]
FULL TEXT: 2645 lines

4/6/30 (Item 17 from file: 654)
02625227
DNA PHOTOCLEAVAGE USING TEXAPHYRINS
[Covalently coupled to a site-directing molecule prferably olegonucleotide; exposure to light]
FULL TEXT: 2604 lines

4/6/31 (Item 18 from file: 654)
02610665
TEXAPHYRIN SOLID SUPPORTS AND DEVICES
[Useful in the separation of neutral and anionic species, phosphate ester hydrolysis, magnetic resonance imaging and photodynamic therapy]
FULL TEXT: 3525 lines

4/6/32 (Item 19 from file: 654)
02603461
TEXAPHYRIN-OLIGONUCLEOTIDE CONJUGATES
[Effective for treating hypoxic areas of solid neoplasms]
FULL TEXT: 2503 lines

4/6/33 (Item 20 from file: 654)
02598892
PYROLE NITROGEN-SUBSTITUTED TEXAPHYRINS
[Radiation sensitizers; tumor therapy]
FULL TEXT: 2334 lines

4/6/34 (Item 21 from file: 654)
02596012
METHOD OF MAGNETIC RESONANCE IMAGE ENHANCEMENT
[Texaphyrins as radiation sensitizers]
FULL TEXT: 2431 lines

4/6/35 (Item 22 from file: 654)
02581903
TEXAPHYRINS AND USES THEREOF
[Useful in photodynamic therapy and light-induced cleavage of a polymer of deoxyribonucleic acid]
FULL TEXT: 2640 lines

4/6/36 (Item 23 from file: 654)
02581803
METHODS OF USING BIOLOGICALLY ACTIVE DIMERIZED POLYPEPTIDE FUSIONS TO DETECT PDGF
[Receptor binding assay]
FULL TEXT: 4114 lines

4/6/37 (Item 24 from file: 654)
02555423
COVALENTLY CROSS-LINKED OLIGONUCLEOTIDES
[Bonding strands or one strand at different sites; RNA mimics fixed in spatial conformation; nuclease resistant mimics of binding receptors for nucleic acid-binding proteins; 5-lipoxygenase inhibitors; diagnosis; analyzing]
FULL TEXT: 4329 lines

4/6/38 (Item 25 from file: 654)
02069666
METHOD FOR VISUALIZING THE BASE SEQUENCE OF NUCLEIC ACID POLYMERS
[Replacing oxygen in polymer with sulfur, then complexing with metal; measuring difference in electroconductivity with tip of scanning probe microscope]
FULL TEXT: 650 lines
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? ds

Set	Items	Description
S1	115	(RNA(W)ANALOG) OR (RNA(W)NUCLEOSIDE(W)ANALOG)
S2	101	RD (unique items)
S3	37	S2 AND (VIRUS OR VIRAL)
S4	38	S2 AND (VIRUS OR VIRAL OR HIV)
S5	63	S2 NOT S4

? t s4/7/1,6-13

4/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08749467 96357031
RNA replication by a respiratory syncytial **virus** **RNA** **analog** does not obey the rule of six and retains a nonviral trinucleotide extension at the leader end.
Samal SK; Collins PL
Regional College of Veterinary Medicine, University of Maryland, College Park 20742, USA.
J Virol (UNITED STATES) Aug 1996, 70 (8) p5075-82, ISSN 0022-538X Journal Code: KCV
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Genome analogs ("minigenomes") of Sendai and measles viruses replicate efficiently only if their nucleotide length is an even multiple of six, a requirement called the rule of six (P. Calain and L. Roux, J. Virol. 67:4822-4830, 1993; M. S. Sidhu, J. Chan, K. Kaelin, P. Spielhofer, F. Radecke, H. Schneider, M. Masurekar, P. C. Dowling, M. A. Billeter, and S. A. Udem, Virology 208:800-807, 1995). The existence of a comparable requirement was tested for respiratory syncytial **virus** (RSV), which also is a member of family Paramyxoviridae and whose natural genome length also is a multiple of six. An internally truncated analog of RSV positive-sense replicative intermediate RNA (antigenome) bearing the chloramphenicol acetyltransferase gene as a reporter was synthesized from cDNA in vitro. This RNA was transfected into cells which were infected with RSV as a helper. Miniantigenomic RNA was indistinguishable from previously studied negative-sense minigenome RNA in its ability to participate in transcription, RNA replication, and incorporation into transmissible particles. Sixteen miniantigenomes which were of slightly different lengths and which in aggregate represented multiples of a wide range of integers including 1 to 15 were constructed. During transfection and two serial passages, the various miniantigenomes were essentially indistinguishable with regard to the efficiency of transcription, RNA replication, and packaging into transmissible particles. Progeny minigenomes of six different mutants were recovered postpassage, copied into cDNA, cloned, and sequenced completely. The length of each of these RNAs was found to have remained unchanged during replication and passage. Thus, RSV transcription and replication appear to lack the requirement that the template length be an even multiple of an integer such as six, which for Sendai and measles viruses is obligatory for nucleocapsid function. Each of the in vitro-synthesized miniantigenomes used in transfection contained a nonviral extension of three nucleotides, GGG, on the 5' (leader) end contributed by

the T7 promoter. The termini of the recovered minigenomes were examined for five mutants by [redacted] circularization followed [redacted] cDNA synthesis, amplification, cloning, and sequencing. Unexpectedly, each recovered minigenome contained the complement of this nonviral extension on the 3' (leader) end, showing that it had been faithfully copied and maintained during RNA replication and passage. The nonviral trinucleotide did not appear to affect the activity of the template.

4/7/6 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

129000579 CA: 129(1)579c PATENT
Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA
INVENTOR(AUTHOR): Loeb, Lawrence A.; Mullins, James I.
LOCATION: USA
ASSIGNEE: University of Washington; Loeb, Lawrence A.; Mullins, James I.
PATENT: PCT International ; WO 9818324 A1 DATE: 19980507
APPLICATION: WO 97US19670 (19971027) *US 29404 (19961028) *US 40535 (19970227)
PAGES: 60 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A01N-043/04A; A61K-031/70B; C12N-007/04B; C12N-007/06B; C12Q-001/68B; C12Q-001/70B
DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; US; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; KE; LS; MW; SD ; SZ; UG; ZW; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG
SECTION:
CA201005 Pharmacology
CA263XXX Pharmaceuticals
IDENTIFIERS: ribonucleoside analog virus mutation antiviral, screening antiviral ribonucleoside analog virus mutation, combinatorial library antiviral ribonucleoside analog
DESCRIPTORS:
mRNA...
analogs; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Antiviral agents... Anti-AIDS drugs... Combinatorial library... Coronavirus ... Dengue virus... DNA... Drug delivery systems... Drug screening... Feline immunodeficiency virus... Feline leukemia virus... Hepatitis A virus ... Hepatitis B virus... Hepatitis B... Hepatitis C virus... Hepatitis C... Human immunodeficiency virus 1... Human immunodeficiency virus 2... Human immunodeficiency virus... Human T-lymphotropic virus 1... Human T-lymphotropic virus 2... Influenza virus... Mutation... Nucleoside analogs ... Oral drug delivery systems... Parenteral solutions(drug delivery systems)... Respiratory syncytial virus... Retroviridae... RNA viruses... RNA... Simian immunodeficiency virus... Tissue culture(animal)... Vesicular stomatitis virus...
induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
T cell leukemia...
inhibitors; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Mutagens...
mutagenic potential; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Virus...
mutation rate; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Reactive oxygen species...
reaction; induction of viral mutation by incorporation of miscoding

ribonucleoside analogs into viral RNA, and screening method
Leukemia inhibitors.
T cell leukemia inhibitors; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Nucleic acids...
templates; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
CAS REGISTRY NUMBERS:
9014-24-8 and RNA polymerase II; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
66-22-8 73-24-5 biological studies, RNA nucleoside analog replacement of; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
58-61-7D 58-96-8D 65-46-3D 118-00-3D 957-77-7D 1867-73-8D 2140-64-9D 2140-69-4D 2149-76-0D 3066-86-2D 3868-31-3D 3868-32-4D 7803-88-5D 13007-43-7D 23899-77-6D 25130-29-4D 33962-59-3D 34218-77-4D 39007-51-7D 39007-52-8D 39638-73-8D 39708-01-5D 53337-88-5D 53337-89-6D 57294-74-3D 59495-20-4D 72055-62-0D 82773-20-4D 100997-68-0D 108060-85-1D 137248-64-7D 207340-54-3D 207340-56-5D 207340-58-7D derivs., induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
7782-44-7D free radicals, reaction; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
65-71-4 71-30-7 957-77-7 1867-73-8 2140-64-9 2140-69-4 2149-76-0 3066-86-2 3868-31-3 3868-32-4 7803-88-5 13007-43-7 23899-77-6 25130-29-4 33962-59-3 34218-77-4 39007-51-7 39007-52-8 39638-73-8 39708-01-5 53337-88-5 53337-89-6 57294-74-3 59495-20-4 72055-62-0 82773-20-4 100997-68-0 108060-85-1 137248-64-7 207340-54-3 207340-56-5 207340-58-7 induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
65-46-3 73-40-5 RNA nucleoside analog replacement of; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method

4/7/7 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

120024950 CA: 120(3)24950g CONFERENCE PROCEEDING
Rescue of synthetic helper-dependent analogs of the genomic RNAs of respiratory syncytial virus and parainfluenza virus type 3
AUTHOR(S): Collins, Peter L.; Stec, David S.; Kuo, Lili; Hill, Myron G., III; Camargo, Ena; Dimock, Kenneth; Grosfeld, Haim; Mink, Michael A.
LOCATION: Lab. Infect. Dis., Natl. Inst. Health, Bethesda, MD, 20892, USA
JOURNAL: Vaccines 93, (Annu. Meet.), 10th EDITOR: Ginsberg, Harold S (Ed), DATE: 1993 PAGES: 259-64 CODEN: 59HUAJ LANGUAGE: English
MEETING DATE: 920000 PUBLISHER: Cold Spring Harbor Lab.,Cold Spring Harbor, N. Y
SECTION:
CA203006 Biochemical Genetics
CA215XXX Immunochemistry
IDENTIFIERS: respiratory syncytial parainfluenza virus RNA analog
DESCRIPTORS:
Virus,animal, parainfluenza 3... Virus,animal, respiratory syncytial...
genomic RNA of, rescue of synthetic helper-dependent analogs of
Ribonucleic acids,viral...
of parainfluenza and respiratory syncytial viruses, rescue of synthetic helper-dependent analogs of

4/7/8 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

119113265 CA: 119(11)113265j JOURNAL
Rescue of a 7502-nucleotide (49.3% of full-length) synthetic analog of respiratory syncytial virus genomic RNA
AUTHOR(S): Collins, Peter L.; Mink, Michael A.; Hill, Myron G., III; Camargo, Ena; Grosfeld, Haim; Stec, David S.
LOCATION: Lab. Infect. Dis., Natl. Inst. Allergy and Infect. Dis., Bethesda, MD, 20892, USA
JOURNAL: Virology DATE: 1993 VOLUME: 195 NUMBER: 1 PAGES: 252-6
CODEN: VIRLAX ISSN: 0042-6822 LANGUAGE: English
SECTION:
CA210006 Microbial Biochemistry
IDENTIFIERS: RNA synthetic rescue respiratory syncytial virus, encapsidation large synthetic RNA analog
DESCRIPTORS:
Ribonucleic acids,viral...
large synthetic analog, rescue of, of human respiratory syncytial virus
Virus,animal, human respiratory syncytial...
RNA of, rescue of large synthetic analog of
Deoxyribonucleic acids,complementary...
viral RNA analog constructed from, rescue of, of human respiratory syncytial virus

4/7/9 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

119067312 CA: 119(7)67312x PATENT
Duplex-forming polynucleotide conjugates
INVENTOR(AUTHOR): Ma, Michael Y X.; Reid, Lorne S.; Sumner-Smith, Martin; Barnett, Richard W.
LOCATION: Can.,
ASSIGNEE: Allelix Biopharmaceuticals Inc.
PATENT: PCT International ; WO 9306122 A1 DATE: 930401
APPLICATION: WO 92CA423 (920925) *US 766550 (910927)
PAGES: 56 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C07H-021/04A; C07H-021/00B; C12P-019/34B; A61K-048/00B DESIGNATED COUNTRIES: AT; AU; BB; BG; BR; CA; CH; CS; DE; DK; ES; FI; GB; HU; JP; KP; KR; LK; LU; MG; MN; MW; NL; NO; PL; RO; RU; SD; SE DESIGNATED REGIONAL: AT; BE; CH; DE; DK; ES; FR ; GB; GR; IE; IT; LU; MC; NL; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; SN; TD; TG
SECTION:
CA209014 Biochemical Methods
CA201XXX Pharmacology
CA233XXX Carbohydrates
IDENTIFIERS: polynucleotide duplex linker prepn therapeutic, Tar analog linker Tat binding
DESCRIPTORS:
Cattle...
alk. phosphatase of intestine of calf, duplex-forming polynucleotide conjugates stability with respect to
Intestine,composition...
alk. phosphatase of, of calf, duplex-forming polynucleotide conjugates stability with respect to
Antigens...
immunogenic epitopes of, linker-contg. duplex-forming polynucleotide conjugate in duplex form presenting
Linking agents...
in duplex-forming polynucleotide conjugate prepn., for therapeutic applications
Ribonucleic acid formation factors,gene tat...

linker-contg. duplex-forming polynucleotide conjugate binding, of human immunodeficiency virus, for therapeutic applicati
Virus,animal, human immunodeficiency...
linker-contg. duplex-forming polynucleotide conjugate binding Tat protein of, for therapeutic applications
Proteins,specific or class, ligand-binding...
linker-contg. duplex-forming polynucleotide conjugates, for therapeutic applications
Animal cell line,Hut 78... Lymphocyte,T-cell...
linker-contg. duplex-forming polynucleotide conjugates uptake by
Nucleotides,poly-,polymers... Nucleotides,poly-, conjugates,polymers...
Nucleotides,poly-, deoxyribo-,polymers...
linker-contg., duplex-forming, prepn. of, for therapeutic applications
Vigna radiata...
nuclease of, duplex-forming polynucleotide conjugates stability with respect to
Biological transport...
of linker-contg. duplex-forming polynucleotide conjugates
Virus,animal...
protein regulating expression of gene of, linker-contg. duplex-forming polynucleotide conjugate binding, for therapeutic applications
Gene,animal...
protein regulating expression of, linker-contg. duplex-forming polynucleotide conjugate binding, for therapeutic applications
Virus,animal, human immunodeficiency 1...
Tat protein fragment from, binding of, to linker-contg. duplex-forming Tar hairpin RNA analog conjugates

CAS REGISTRY NUMBERS:

9037-44-9 duplex-forming polynucleotide conjugates stability with respect to
9001-78-9 duplex-forming polynucleotide conjugates stability with respect to, of calf intestine
9026-81-7 duplex-forming polynucleotide conjugates stability with respect to, of mung bean
148998-95-2 148998-96-3 EcoRI digestion of, linker-contg. duplex-forming polynucleotide conjugate prepn. for therapeutic applications in relation to
148915-79-1 linker-contg. duplex-forming Tar hairpin RNA analog conjugate binding of
148998-97-4 148998-98-5 148998-99-6 148999-00-2 148999-01-3 148999-02-4 linker-contg. Tar hairpin RNA analog, of HIV-1, Tat protein fragment binding to
148999-03-5 148999-04-6 148999-07-9 linker-contg. Tar hairpin RNA analog, of HIV-1, Tat protein sequence binding to
110894-23-0P 125607-09-2P 146668-73-7P 146669-12-7P prepn. of, as linker for duplex-forming polynucleotide conjugate prepn.
110675-04-2P 123706-69-4P 146669-10-5P 146669-11-6P prepn. of, in linker prepn. for duplex-forming polynucleotide conjugate prepn.
40615-36-9 89992-70-1 reaction of, in linker prepn. for duplex-forming polynucleotide conjugate prepn.
112-27-6 504-63-2 2615-15-8 3937-56-2 reaction of, with dimethoxytrityl chloride
148999-09-1 stability of, to nucleases, linker-contg. duplex-forming polynucleotide conjugates in relation to
148999-06-8 Tar hairpin RNA analog fragments, of HIV-1, Tat protein fragment binding to
148999-05-7 Tar hairpin RNA analog, of HIV-1, Tat protein fragment binding to
148999-08-0 Tar hairpin RNA analog, of HIV-1, Tat protein sequence binding to

4/7/10 (Item 5 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

116052983 CA: 11[redacted])52983f PATENT
Hybridization assay using midivariant RNA analogs and Q.beta. replicase
INVENTOR(AUTHOR): Stefano, James E.
LOCATION: USA
ASSIGNEE: Gene-Trak Systems
PATENT: European Pat. Appl. ; EP 454461 A1 DATE: 911030
APPLICATION: EP 91303739 (910425) *US 514518 (900425) *US 514161 (900425)
PAGES: 25 pp. CODEN: EPXXDW LANGUAGE: English CLASS: C12Q-001/68A
DESIGNATED COUNTRIES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; LU; NL; SE
SECTION:
CA203005 Biochemical Genetics
IDENTIFIERS: hybridization assay amplification midivariant RNA, Q beta replicase hybridization assay, nucleic acid detection quantitation
DESCRIPTORS:
Chlamydia trachomatis...
detection of, midivariant RNA mutant-contg. hybridization probe for, Q.beta. replicase amplification in relation to
Ribonucleic acids,viral, MDV-1...
hybridization probe contg. mutant of, in nucleic acid detection and quantitation, Q.beta. replicase amplification in relation to
Nucleic acid hybridization...
mutant midivariant RNA-contg. probes for, Q.beta. replicase amplification in presence of midivariant RNA replication-inhibiting agent in relation to
CAS REGISTRY NUMBERS:
1239-45-8D homodimer, replication of midivariant RNA resistant to, in hybridization assay for nucleic acid detection and quantitation
138546-75-5 human immunodeficiency virus detection with, Q.beta. replicase amplification in presence of propidium iodide in
138546-73-3 hybridization probes contg., in hybridization assay for nucleic acid detection and quantitation, Q.beta. replicase-based amplification in relation to
9026-28-2 in hybridization assay for detection and quantitation of nucleic acids, midivariant RNA analog-contg. probe amplification using
65-61-2 83-89-6 92-62-6 518-67-2 1239-45-8 25535-16-4 replication of midivariant RNA resistant to, in hybridization assay for nucleic acid detection and quantitation

4/7/11 (Item 6 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

79013954 CA: 79(3)13954v JOURNAL
Rous sarcoma virus. Effects of nucleoside analogs on virus synthesis
AUTHOR(S): Brdar, B.; Rifkin, D. B.; Reich, E.
LOCATION: Rockefeller Univ., New York, N. Y.
JOURNAL: J. Biol. Chem. DATE: 1973 VOLUME: 248 NUMBER: 7 PAGES: 2397-408 CODEN: JBCHA3 LANGUAGE: English
SECTION:
CA903002 Biochemical Interactions
IDENTIFIERS: bromotubercidin virus RNA, fluorouridine virus RNA, virus RNA nucleoside analog
DESCRIPTORS:
Ribonucleic acids...
formation of, bromotubercidin and fluorouridine effect on
Virus,animal...
Rous sarcoma, bromotubercidin and fluorouridine effect on
Proteins...
viral, formation of, bromotubercidin inhibition of
CAS REGISTRY NUMBERS:
21193-80-6 virus formation inhibition by
316-46-1 virus formation response to

4/7/12 (Item 7 f[redacted] file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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74109742 CA: 74(21)109742x JOURNAL
Thermal activation of the antiviral activity of synthetic double-stranded polyribonucleotides
AUTHOR(S): De Clercq, Erik; Wells, Robert D.; Grant, Robert C.; Merigan, Thomas G.
LOCATION: Med. Sch., Stanford Univ., Stanford, Calif.
JOURNAL: J. Mol. Biol. DATE: 1971 VOLUME: 56 NUMBER: 1 PAGES: 83-100
CODEN: JMOBAK LANGUAGE: English
SECTION:
CA813000 Immunochemistry
IDENTIFIERS: polynucleotide virus inhibition, RNA analog virus inhibition, interferon inducer virus inhibition
DESCRIPTORS:
Viruses,animal...
nucleotide inhibition of, thermal activation of
Nucleotides,biological studies...
virus inhibition by double-stranded poly-, thermal activation of
CAS REGISTRY NUMBERS:
26182-09-2 virus inhibition by, thermal activation of

4/7/13 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.

0121595 DBA Accession No.: 91-09237 PATENT
Modified oligonucleotide analogs containing novel linkages - which modulate gene expression in therapy and diagnosis of **virus** and bacterium disease and tumor cell growth
PATENT ASSIGNEE: Gilead-Sci. 1991
PATENT NUMBER: WO 9106629 PATENT DATE: 910516 WPI ACCESSION NO.: 91-164179 (9122)
PRIORITY APPLIC. NO.: US 559957 APPLIC. DATE: 900730
NATIONAL APPLIC. NO.: WO 90US6110 APPLIC. DATE: 901024
LANGUAGE: English
ABSTRACT: A new modified oligomer (I), or its derivatives, contains a nucleotide sequence which includes, in place of 1 or more conventional linkages between nucleotide residues, a linkage of formula -Y-CX2-Y- (where each Y = O or S; each X = stabilizing substitutions), while all other linkages are phosphodiester (or conventional substitutions). Also new are intermediate compounds (II), where B = purine or pyrimidine residue, or analogous residue; each X' = stabilizing group, but not both H; R = aliphatic or aromatic hydrocarbyl, optionally containing a heterocycle; and Pr = H or protecting group. More specifically, (I) are of formula (III), where each Z = P(O)O or CX2; n = 1-200; each m = 0 or 1; and at least one Z is CX2. Each X = H, or CX2 is one of 6 specified heterocycles. (I) can bind to target nucleic acid, so are especially useful (in antisense DNA or antisense RNA procedures) for treating genetically-mediated diseases. (I) are resistant to nucleases, show improved cell penetration and, because they do not exhibit diastereoisomerism, can bind strongly to target DNA or RNA. (42pp)
? t s4/3,ab/15,19,21

4/3,AB/15 (Item 2 from file: 654)
DIALOG(R)File 654:US Pat.Full.
(c) format only 1999 The Dialog Corp. All rts. reserv.

02895559
Utility

COMPOSITIONS AND METHODS OF DEVELOPING OLIGONUCLEOTIDES AND OLIGONUCLEOTIDE ANALOGS HAVING ANTIVI[redacted] ACTIVITY

PATENT NO.: 5,856,085
ISSUED: January 05, 1999 (19990105)
INVENTOR(s): Wang, Jin-Feng, Hummelstown, PA (Pennsylvania), US (United States of America)
Pan, Weihua, Hershey, PA (Pennsylvania), US (United States of America)
ASSIGNEE(s): The Penn State Research Foundation, (A U.S. Company or Corporation), University Park, PA (Pennsylvania), US (United States of America)
[Assignee Code(s): 31470]
APPL. NO.: 8-566,216
FILED: December 01, 1995 (19951201)

5/6/1 (Item 1 from file: 155)
09181310 97461553
Specific binding of aminoglycosides to a human rRNA construct based on a DNA polymorphism which causes aminoglycoside-induced deafness.
Oct 7 1997

5/6/2 (Item 2 from file: 155)
08445977 96072776
Probing the structure of long single-stranded DNA fragments with neocarzinostatin chromophore. Extension of the base-catalyzed bulge-specific reaction.
Nov 21 1995

5/6/3 (Item 3 from file: 155)
08169571 94173585
Did reflexive catalysts drive chemical evolution?
Feb 1994

5/6/4 (Item 4 from file: 155)
08068795 95074075
Spliced leader-associated RNA of trypanosomes. Sequence conservation and association with protein components common to trans-spliceosomal ribonucleoproteins.
Dec 2 1994

5/6/5 (Item 5 from file: 155)
07001438 91279452
Duplex stabilities of phosphorothioate, methylphosphonate, and RNA analogs of two DNA 14-mers.
Jun 11 1991

5/6/6 (Item 6 from file: 155)
01500327 72183778
Covalent attachment of a peptidyl-transfer **RNA analog** to the 50S subunit of Escherichia coli ribosomes.
Apr 1972

5/6/7 (Item 1 from file: 5)
11708796 BIOSIS NO.: 199800490527
1,5-Anhydro-2-deoxy-D-altritol oligonucleotides as conformationally restricted analogues of RNA.
1998

5/6/8 (Item 2 from file: 5)
11604587 BIOSIS NO.: 199800386318
Correlating structure and stability of DNA duplexes with incorporated 2'-O-modified RNA analogues.
1998

5/6/9 (Item 3 from file: 5)

11444850 BIOSIS NO.: 199800226182
Ribosome-catalyzed pe[redacted]de-bond formation with an A-si[redacted]substrate covalently linked to 23S ribosomal RNA.
1998

5/6/10 (Item 4 from file: 5)
10355113 BIOSIS NO.: 199698810031
Examining cooperative catalysis in phosphodiester hydrolysis.
1996

5/6/11 (Item 5 from file: 5)
09730968 BIOSIS NO.: 199598185886
Parameters that influence the extent of site occupancy by a candidate telomere end-binding protein.
1995

5/6/12 (Item 6 from file: 5)
09335985 BIOSIS NO.: 199497344355
A strongly base-paired terminal helix is required for the accumulation of a 5S **RNA analog** in vivo.
1994

5/6/13 (Item 7 from file: 5)
05582622 BIOSIS NO.: 000083055762
PHOTOCROSSLINKING OF THE SIGNAL SEQUENCE OF NASCENT PREPROLACTIN TO THE 54-KILODALTON POLYPEPTIDE OF THE SIGNAL RECOGNITION PARTICLE
1986

5/6/14 (Item 8 from file: 5)
05274838 BIOSIS NO.: 000082115463
THIRD SITE OF THE 70S RIBOSOME FOR AMINOACYL TRANSFER **RNA ANALOG** BINDING
1986

5/6/15 (Item 9 from file: 5)
05049391 BIOSIS NO.: 000081007515
AFFINITY LABELING OF ESCHERICHIA-COLI RIBOSOMES WITH A DERIVATIVE OF HEPTAURIDYLIC-ACID-5'-TRIPHOSPHATE AS A MESSENGER **RNA ANALOG**
1985

5/6/16 (Item 10 from file: 5)
04739049 BIOSIS NO.: 000080042176
ANTIPROLIFERATIVE AND IMMUNOMODULATORY ACTIONS OF BETA INTERFERON AND DOUBLE-STRANDED RNA INDIVIDUALLY AND IN COMBINATION ON HUMAN BLADDER TUMOR XENOGRAFTS IN NUDE MICE
1985

5/6/17 (Item 11 from file: 5)
04331642 BIOSIS NO.: 000078061186
USE OF 5 FLUORODEOXY CYTIDINE AND TETRA HYDRO URIDINE TO EXPLOIT HIGH LEVELS OF DEOXY CYTIDYLATE DEAMINASE IN TUMORS TO ACHIEVE DNA DIRECTED AND TARGET DIRECTED THERAPIES
1984

5/6/18 (Item 12 from file: 5)
03827525 BIOSIS NO.: 000075005598

KINETICS OF AFFINITY LABELING AS AN APPROACH TO ELUCIDATE THE COOPERATIVITY BETWEEN SUBSTRATE RECOGNIZED CENTERS OF DIMERIC ENZY
1981

5/6/19 (Item 13 from file: 5)
02923027 BIOSIS NO.: 000069031145
AN ENERGY TRANSFER EQUILIBRIUM BETWEEN 2 IDENTICAL COPIES OF A RIBOSOME BOUND FLUORESCENT TRANSFER **RNA ANALOG** IMPLICATIONS FOR THE POSSIBLE STRUCTURE OF CODON ANTI CODON COMPLEXES
1979

5/6/20 (Item 14 from file: 5)
02124538 BIOSIS NO.: 000063039534
PUROMYCIN INHIBITION OF EUKARYOTIC RIBOSOMES DIFFERENCES IN SENSITIVITY BETWEEN POLY PEPTIDE SYNTHESIS DIRECTED BY ENDOGENOUS MESSENGER RNA AND SYNTHETIC TEMPLATES INCLUDING POLY URIDYLIC-ACID
1976

5/6/21 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

New photoreactive RNA analogs

5/6/22 (Item 2 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method

5/6/23 (Item 3 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Structural aspects of nucleic acid analogs and antisense oligonucleotides

5/6/24 (Item 4 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Chemistry of .alpha.-amino nitriles. XVII. Oligo(nucleodipeptamidinium salts

5/6/25 (Item 5 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Hybridization and footprinting methods to characterize the interactions of 16 S rRNA analogs for identification of antibiotics

5/6/26 (Item 6 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Nonionic Analogs of RNA with Dimethylene Sulfone Bridges

5/6/27 (Item 7 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

NMR studies of a lead ribozyme and its non-cleavable analog

5/6/28 (Item 8 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Stabilized RNA analogs for antisense and ribozyme applications

5/6/29 (Item 9 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

New photocrosslinking analogs of mRNA

5/6/30 (Item 10 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of arabinonucleic acid (tANA)

5/6/31 (Item 11 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Catalytic hydrolysis of 2',3'-cyclic adenosine monophosphate by aqua(2,2':6',2''-terpyridine)copper(II): breakdown of the analogy between activated phosphodiesters and RNA

5/6/32 (Item 12 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

The solution structure of a d(C(TTCG)G) DNA hairpin and comparison to the unusually stable RNA analog

5/6/33 (Item 13 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Replacement of RNA hairpins by in vitro selected tetranucleotides

5/6/34 (Item 14 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Antibodies to ligand analogs and their utility in ligand-receptor assays

5/6/35 (Item 15 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of tetrameric cyclic branched-RNA (lariat) modelling the introns of group II and nuclear pre-mRNA processing reaction (splicing)

5/6/36 (Item 16 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of tetrameric branched RNA-DNA conjugate and branched-RNA analog and their comparative conformational studies by 500 MHz NMR spectroscopy

5/6/37 (Item 17 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Template-catalyzed oligomerization with an atactic glycerol-based

polynucleotide analog

5/6/38 (Item 18 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

The design and catalytic properties of a simplified ribonuclease P RNA

5/6/39 (Item 19 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

The U2 RNA analog of Trypanosoma brucei gambiense: implications for a splicing mechanism in trypanosomes

5/6/40 (Item 20 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synergistic effect of human immune interferon and double-stranded RNA against human colon carcinoma cells in vitro

5/6/41 (Item 21 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of RNA analogs

5/6/42 (Item 22 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Chemical studies on nucleic acid analogs

5/6/43 (Item 23 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Analogs of lysyl-tRNA as probes of ribosome and elongation factor Tu structure and function

5/6/44 (Item 24 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

The primitive decoding system for the origin of life: a hypothesis

5/6/45 (Item 25 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Interferon induction by a 2'-modified double-helical RNA, poly(2'-azido-2'-deoxyinosinic acid).polycytidylic acid

5/6/46 (Item 26 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Interferon inducing activity of a 2'-modified double-stranded complex, poly (2'-azido-2'-deoxyinosinic acid).cntdot.poly(cytidylic acid)

5/6/47 (Item 27 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

A homologous series of photoreactive peptidyl-tRNAs for probing the ribosomal peptidyltransferase center

5/6/48 (Item 28 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Peptide donor activity of the N-acylamino acid esters of adenosine-5'-phosphate

5/6/49 (Item 29 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

N,.epsilon.-Acetyllysine transfer ribonucleic acid: a biologically active analogue of aminoacyl transfer ribonucleic acids

5/6/50 (Item 30 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Participation in protein biosynthesis of transfer ribonucleic acid bearing altered 3'-terminal ribosyl residues

5/6/51 (Item 31 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Interaction of polyriboguanylic and polyribocytidylic acids

5/6/52 (Item 32 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis and properties of poly(2-methyladenylic acid). Formation of a poly(A).poly(U) complex with Hoogsteen-type hydrogen bonding

5/6/53 (Item 33 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Helical complexes of polyriboinosinic acid with copolymers of polyribocytidylic acid containing inosine, adenosine, and uridine residues

5/6/54 (Item 34 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Preparation of N-acylphenylalanyl-tRNA with alkylating groups for affinity-labeling for studying the peptidyl-transferase center of ribosomes

5/6/55 (Item 35 from file: 399)
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Base pairing equilibriums between polynucleotides and complementary monomers

5/6/56 (Item 36 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Poly(ADP-ribose). Possibility of its regulatory action for development of genetic information

5/6/57 (Item 1 from file: 357)
0203155 DBA Accession No.: 96-13926
Useful properties of restriction enzymes that recognize interrupted palindromes - restriction endonuclease BstEII for DNA ligation and application in cloning 1996

5/6/58 (Item 2 from file: 357)
0123272 DBA Accession No.: 91-10914
Morpholino-based polymers containing purine or pyrimidine base - polynucleotide analog for e.g. hybridization probe, antisense **RNA analog**, etc. 1991

5/6/59 (Item 3 from file: 357)
0103368 DBA Accession No.: 90-06059
Mixed deoxyribo- and ribo-oligonucleotides with catalytic activity - construction of ribozyme hammerhead **RNA analog** containing DNA 1990

5/6/60 (Item 4 from file: 357)
0098327 DBA Accession No.: 90-01018
2'-O-tetrahydropyranyl-nucleoside derivatives useful as intermediate for RNA-related compounds in recombinant gene techniques - and in pharmaceutical industry 1989

5/6/61 (Item 1 from file: 654)
02904196
METHOD FOR IDENTIFYING INHIBITORS OF CDC2 PROTEIN KINASE FROM PNEUMOCYSTIS CARINII
FULL TEXT: 1570 lines

5/6/62 (Item 2 from file: 654)
02884917
ASSAYING NUCLEOTIDES IN SOLUTION USING A FLUORESCENT INTENSITY QUENCHING EFFECT
FULL TEXT: 899 lines

5/6/63 (Item 3 from file: 654)
02586327
CHEMICAL EVENT SELECTION BY SUICIDE SUBSTRATE CONJUGATES
FULL TEXT: 3109 lines
? ds

Set	Items	Description
S1	115	(RNA(W)ANALOG) OR (RNA(W)NUCLEOSIDE(W)ANALOG)
S2	101	RD (unique items)
S3	37	S2 AND (VIRUS OR VIRAL)
S4	38	S2 AND (VIRUS OR VIRAL OR HIV)
S5	63	S2 NOT S4

? t s5/7/22,35,41

5/7/22 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

126302361 CA: 126(23)302361t PATENT
Mutagenesis of nucleic acids by making copies incorporating base analogs

capable of inducing mutation in random mutagenesis PCR method
INVENTOR(AUTHOR): Williams, David; Brown, Daniel; Zaccolo, Manuella Carla ; Gherardi, Ermanno
LOCATION: UK,
ASSIGNEE: Medical Research Council; Williams, David; Brown, Daniel; Zaccolo, Manuella Carla; Gherardi, Ermanno
PATENT: PCT International ; WO 9711083 A1 DATE: 19970327
APPLICATION: WO 96GB2333 (19960919) *GB 9519425 (19950922) *GB 962011 (19960201)
PAGES: 75 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C07H-019/20A; C07H-019/10B; C12N-015/11B; C12N-015/01B DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; HU; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; TJ; TM; TR; TT; UA; UG; US; UZ; VN; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: KE; LS ; MW; SD; SZ; UG; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI
SECTION:
CA203001 Biochemical Genetics
CA233XXX Carbohydrates
IDENTIFIERS: nucleic acid base analog mutagenesis PCR, RNA nucleoside analog mutagenesis PCR, DNA nucleoside analog mutagenesis PCR, random mutagenesis PCR nucleic acid analog
DESCRIPTORS:
Deoxyribonucleoside triphosphates... Nucleoside triphosphates...
analogs; mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method
DNA... Nucleic acids... PCR(polymerase chain reaction)... RNA...
mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method
Mutagenesis...
random; mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method
CAS REGISTRY NUMBERS:
88847-89-6 126128-42-5 189129-33-7 conversion to triphosphate; mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method
9014-24-8 mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method
139307-94-1P 173964-83-5P 189278-08-8P prepn. and incorporation as nucleoside analog; mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method
9012-90-2 Taq; mutagenesis of nucleic acids by making copies incorporating base analogs capable of inducing mutation in random mutagenesis PCR method

5/7/35 (Item 15 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

116129494 CA: 116(13)129494g JOURNAL
Synthesis of tetrameric cyclic branched-RNA (lariat) modelling the introns of group II and nuclear pre-mRNA processing reaction (splicing)
AUTHOR(S): Sund, Christian; Agback, Peter; Chattopadhyaya, Jyoti
LOCATION: Biomed. Cent., Univ. Uppsala, S-751 23, Uppsala, Swed.
JOURNAL: Tetrahedron DATE: 1991 VOLUME: 47 NUMBER: 46 PAGES: 9659-74
CODEN: TETRAB ISSN: 0040-4020 LANGUAGE: English
SECTION:
CA233010 Carbohydrates
IDENTIFIERS: RNA tetrameric cyclic branched lariat, intron modeling nuclear mRNA, phenylxanthenyladenosine condensation uridine guanosine dimer

, adenosine phenylxanthenyl condensation uridine guanosine dimer
  DESCRIPTORS:
Nuclear magnetic resonance...
    in tetrameric cyclic branched RNA analog, of protons and phosphorus-31
Asymmetric synthesis and induction...
    of cyclic branched (lariat) RNA analog
Regiochemistry...
    of deprotection in synthesis of tetrameric cyclic branched RNA analog
Conformation and Conformers...
    of tetrameric cyclic branched (lariat) RNA analog
Ribonucleic acids,messenger...
    tetrameric cyclic branched analog of, regioselective synthesis of
  CAS REGISTRY NUMBERS:
86988-31-0 coupling of, with guanosine phosphate deriv.
84315-17-3 coupling of, with guanosine-uridine dimer
99519-17-2 coupling of, with guanosine-uridine-adenosine trimer
139391-19-8 coupling of, with uridine deriv.
139413-38-0P prepn. and coupling of, with adenosine deriv.
139391-27-8P prepn. and coupling of, with cytidine deriv.
139391-25-6P prepn. and cyclocondensation of
139413-40-4P prepn. and deacylation of
139441-57-9P prepn. and deprotection of, tetrameric cyclic branched RNA
    analog via
139391-21-2P prepn. and partial ammonium salt formation of
139391-20-1P 139391-23-4P 139413-39-1P prepn. and phosphorylation of
139413-43-7P prepn. and regioselective O-deprotection of
139413-41-5P regioselective prepn. and phosphorus-31 NMR of

 5/7/41   (Item 21 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

  103037699   CA: 103(5)37699f   DISSERTATION
  Synthesis of RNA analogs
  AUTHOR(S): Mazur, Wieslaw Adam
  LOCATION: City Univ. New York, New York, NY, USA
  DATE: 1984 PAGES: 128 pp. CODEN: DABBBA LANGUAGE: English CITATION:
Diss. Abstr. Int. B 1985, 45(11), 3509 AVAIL: Univ. Microfilms Int., Order
No. DA8501157
  SECTION:
CA133010 Carbohydrates
  IDENTIFIERS: RNA analog
  DESCRIPTORS:
Ribonucleic acids,analogs...
    synthesis of
? ds

Set   Items   Description
S1   115   (RNA(W)ANALOG) OR (RNA(W)NUCLEOSIDE(W)ANALOG)
S2   101   RD (unique items)
S3   37   S2 AND (VIRUS OR VIRAL)
S4   38   S2 AND (VIRUS OR VIRAL OR HIV)
S5   63   S2 NOT S4
? logoff

       10feb99 11:32:21 User233835 Session D238.3
            $1.25   0.416 DialUnits File155
               $0.00 11 Type(s) in Format 6
               $0.20 1 Type(s) in Format 7
            $0.20 12 Types
     $1.45 Estimated cost File155
            $2.56   0.488 DialUnits File5
               $0.00 14 Type(s) in Format 6

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          $0.00  14 Types
     $2.56  Estimated cost File5
          $7.30    0.622 DialUnits File399
            $19.35  43 Type(s) in Format  6
            $24.50  10 Type(s) in Format  7
          $43.85  53 Types
    $51.15  Estimated cost File399
          $1.10    0.126 DialUnits File357
             $0.00  5 Type(s) in Format  6
             $2.08  1 Type(s) in Format  7
          $2.08  6 Types
     $3.18  Estimated cost File357
          $0.46    0.028 DialUnits File351
     $0.46  Estimated cost File351
         $18.91    3.439 DialUnits File654
             $0.00  28 Type(s) in Format  6
             $2.70  3 Type(s) in Format  4 (UDF)
          $2.70  31 Types
    $21.61  Estimated cost File654
          OneSearch, 6 files,  5.118 DialUnits FileOS
          FTSNET   0.450 Hrs.
    $80.41  Estimated cost this search
    $82.54  Estimated total session cost   5.938 DialUnits
Logoff: level 99.01.29 D  11:32:22


Logging in to Dialog

Trying 9158046...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ********
ENTER PASSWORD:
 t840lcpq
 ********
Welcome to DIALOG

Dialog level 99.01.29D

Last logoff:  10feb99 11:32:22
Logon file001 10feb99 13:17:45
***** The DIALORDER suppliers DYNAMIC and FILEDOC are no longer  *****
***** in business. Please do not use them.                       *****
*****                                                           *****
*****File 265:  Please use file 266 as file 265 is no longer     *****
*****  available.                                               *****
***** The MASIS DIALORDER service has been discontinued. For     *****
*****
***** details, please contact MARUZEN CO. LTD, at 3-3272-3496.   *****

***** Files 100 and 552 have been removed from DIALOG.           *****
*****                                                           *****
***** NEW CURRENT year ranges installed.                         *****
 dialog

File   1:ERIC  1966-1999/Feb
       (c) format only 1999 The Dialog Corporation
*File   1: In 1999, RIE and CIJE sections will be added separately,
as soon as they arrive. UDs may be irregular. UD codes will change.

      Set  Items  Description
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? b 410
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>>>'IALOG' not recogn[redacted]d as set or accession number
? set hi ;set hi

       10feb99 13:17:51 User233835 Session D239.1
            $0.25    0.077 DialUnits File1
     $0.25  Estimated cost File1
            FTSNET   0.016 Hrs.
     $0.25  Estimated cost this search
     $0.25  Estimated total session cost   0.077 DialUnits

File 410:Chronolog(R)  1981-1999 Jan/Feb
       (c) 1999 The Dialog Corporation plc

      Set  Items  Description
      ---  -----  -----------
?
HILIGHT set on as ''
HILIGHT set on as ''
? b 155, 5, 399, 357, 351, 654

       10feb99 13:18:29 User233835 Session D239.2
            $0.00    0.041 DialUnits File410
     $0.00  Estimated cost File410
            FTSNET   0.010 Hrs.
     $0.00  Estimated cost this search
     $0.25  Estimated total session cost   0.118 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1999/Mar W4
         (c) format only 1999 Dialog Corporation
  File   5:BIOSIS PREVIEWS(R)  1969-1999/Jan W3
         (c) 1999 BIOSIS
  File 399:CA SEARCH(R)  1967-1999/UD=13006
         (c) 1999 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
  File 357:Derwent Biotechnology Abs  1982-1999/Feb B1
         (c) 1999 Derwent Publ Ltd
*File 357: Effective October 1, DialUnit rates adjusted for unrounding.
See HELP NEWS 357 for details.
  File 351:DERWENT WPI  1963-1998/UD=9906;UP=9906;UM=9906
         (c)1999 Derwent Info Ltd
*File 351: From UD=9901, UM= and UP= update codes will"jump ahead."
See HELP NEWS 351 for info on Alert problems in updates 9851 and 9901.
  File 654:US Pat.Full.  1990-1999/Feb 02
         (c) format only 1999 The Dialog Corp.
*File 654: Reassignment data now current through 08/20/98.
Reexamination, extension, expiration, reinstatement updated weekly.

      Set  Items  Description
      ---  -----  -----------
? s (ribonucleoside(w)analog)

           5565  RIBONUCLEOSIDE
         264852  ANALOG
      S1      15  (RIBONUCLEOSIDE(W)ANALOG)
? rd

>>>Duplicate detection is not supported for File 351.
>>>Duplicate detection is not supported for File 654.

>>>Records from unsupported files will be retained in the RD set.
...completed examining records
      S2      15  RD (unique items)
```

? t s2/6/1-15

2/6/1 (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

A new short synthesis of deoxyhydantocidin derivatives

2/6/2 (Item 2 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA

2/6/3 (Item 3 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of 7-halogenated 8-aza-7-deaza-2'-deoxyguanosines and related pyrazolo(3,4-d)pyrimidine 2'-deoxyribonucleosides

2/6/4 (Item 4 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Nucleic-acid analogs with constraint conformational flexibility in the sugar-phosphate backbone "tricyclo-DNA". Part 1. Preparation of ((5'R,6'R)-2'-deoxy-3',5'-ethano-5',6'-methano-.beta.-D-ribofuranosyl)thymine and -adenine, and the corresponding phosphoramidites for oligonucleotide synthesis

2/6/5 (Item 5 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

2'-Deoxyribonucleoside analogs

2/6/6 (Item 6 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of 5-methyl-2'-O-deoxycytidine analogs to determine monoclonal antibody specificity in the recognition of the 6-(p-bromobenzoylamino)caproyl radical

2/6/7 (Item 7 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of optically active 2',3'-dideoxy-3'-oxa-4'-thio-ribonucleoside analogs by transposition of a leaving group on chiral oxathiolanes via a reductive-oxidative process

2/6/8 (Item 8 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Synthesis of cyclo pyrrolopyrimidine nucleoside analogs

2/6/9 (Item 9 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Stereospecific synthesis and antiviral properties of different

enantiomerically pure carbocyclic 2'-deoxyribonucleosi[redacted] analogs derived from common chiral po[redacted]: (+)-(1R,5S)- and (-)-(1S,5R)-2-oxabicyclo(3.3.0)oct-6-en-3-one

2/6/10 (Item 10 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Anti-herpes simplex virus activity of 5-substituted 2-pyrimidinone nucleosides

2/6/11 (Item 11 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Thin-layer chromatography of purine bases and deoxyribonucleoside analogs. IV

2/6/12 (Item 12 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Recent studies on the antiviral and biochemical properties of 5-halo-5'-amino-deoxyribonucleosides

2/6/13 (Item 13 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Inhibition of the steroid-induced synthesis of .DELTA.6-3-keto steroid isomerase in Pseudomonas testosteroni by a new purine deoxyribonucleoside analog. 6-Chloro-8-aza-9-cyclo-pentylpurine

2/6/14 (Item 1 from file: 654)
02788996
METHOD OF MAKING 2'-O-ALKYL PYRIMIDINE RIBONUCLEOSIDES
FULL TEXT: 1220 lines

2/6/15 (Item 2 from file: 654)
02758777
FLUORESCENT UNIVERSAL NUCLEIC ACID END LABEL
[RNA and DNA with fluorescent groups formed by enzyme or chemical synthesis]
FULL TEXT: 2052 lines
? t s2/7/1,2,8,10

2/7/1 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.

129041353 CA: 129(4)41353t JOURNAL
A new short synthesis of deoxyhydantocidin derivatives
AUTHOR(S): Renard, Annabelle; Kotera, Mitsuharu; Lhomme, Jean
LOCATION: Chimie Bioorganique, L.E.D.S.S., Associe au CNRS, Universite Joseph Fourier, 38041, Grenoble, Fr.
JOURNAL: Tetrahedron Lett. DATE: 1998 VOLUME: 39 NUMBER: 20 PAGES: 3129-3132 CODEN: TELEAY ISSN: 0040-4039 LANGUAGE: English PUBLISHER: Elsevier Science Ltd.
SECTION:
CA233009 Carbohydrates
IDENTIFIERS: hydantoin deoxyribonucleoside analog prepn, deoxyhydantocidin analog prepn erythronolactol chiral synthon

DESCRIPTORS:
Deoxyribonucleosides.
hydantoin; short synthesis of deoxyhydantocidin derivs.
CAS REGISTRY NUMBERS:
95378-36-2 189996-60-9 208181-80-0P 208181-81-1P 208181-82-2P
208181-83-3P 208181-84-4P 208181-85-5P 208181-86-6P 208181-87-7P
short synthesis of deoxyhydantocidin derivs.

2/7/2 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

129000579 CA: 129(1)579c PATENT
Induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA
INVENTOR(AUTHOR): Loeb, Lawrence A.; Mullins, James I.
LOCATION: USA
ASSIGNEE: University of Washington; Loeb, Lawrence A.; Mullins, James I.
PATENT: PCT International ; WO 9818324 A1 DATE: 19980507
APPLICATION: WO 97US19670 (19971027) *US 29404 (19961028) *US 40535 (19970227)
PAGES: 60 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A01N-043/04A; A61K-031/70B; C12N-007/04B; C12N-007/06B; C12Q-001/68B; C12Q-001/70B
DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; US; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; KE; LS; MW; SD ; SZ; UG; ZW; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG
SECTION:
CA201005 Pharmacology
CA263XXX Pharmaceuticals
IDENTIFIERS: ribonucleoside analog virus mutation antiviral, screening antiviral ribonucleoside analog virus mutation, combinatorial library antiviral ribonucleoside analog
DESCRIPTORS:
mRNA...
analogs; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Antiviral agents... Anti-AIDS drugs... Combinatorial library... Coronavirus ... Dengue virus... DNA... Drug delivery systems... Drug screening... Feline immunodeficiency virus... Feline leukemia virus... Hepatitis A virus ... Hepatitis B virus... Hepatitis B... Hepatitis C virus... Hepatitis C... Human immunodeficiency virus 1... Human immunodeficiency virus 2... Human immunodeficiency virus... Human T-lymphotropic virus 1... Human T-lymphotropic virus 2... Influenza virus... Mutation... Nucleoside analogs ... Oral drug delivery systems... Parenteral solutions(drug delivery systems)... Respiratory syncytial virus... Retroviridae... RNA viruses... RNA... Simian immunodeficiency virus... Tissue culture(animal)... Vesicular stomatitis virus...
induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
T cell leukemia...
inhibitors; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Mutagens...
mutagenic potential; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Virus...
mutation rate; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Reactive oxygen species...
reaction; induction of viral mutation by incorporation of miscoding

ribonucleoside analogs into viral RNA, and screening method
Leukemia inhibitors...
T cell leukemia inhibitors; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
Nucleic acids...
templates; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
CAS REGISTRY NUMBERS:
9014-24-8 and RNA polymerase II; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
66-22-8 73-24-5 biological studies, RNA nucleoside analog replacement of; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
58-61-7D 58-96-8D 65-46-3D 118-00-3D 957-77-7D 1867-73-8D 2140-64-9D 2140-69-4D 2149-76-0D 3066-86-2D 3868-31-3D 3868-32-4D 7803-88-5D 13007-43-7D 23899-77-6D 25130-29-4D 33962-59-3D 34218-77-4D 39007-51-7D 39007-52-8D 39638-73-8D 39708-01-5D 53337-88-5D 53337-89-6D 57294-74-3D 59495-20-4D 72055-62-0D 82773-20-4D 100997-68-0D 108060-85-1D 137248-64-7D 207340-54-3D 207340-56-5D 207340-58-7D derivs., induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
7782-44-7D free radicals, reaction; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
65-71-4 71-30-7 957-77-7 1867-73-8 2140-64-9 2140-69-4 2149-76-0 3066-86-2 3868-31-3 3868-32-4 7803-88-5 13007-43-7 23899-77-6 25130-29-4 33962-59-3 34218-77-4 39007-51-7 39007-52-8 39638-73-8 39708-01-5 53337-88-5 53337-89-6 57294-74-3 59495-20-4 72055-62-0 82773-20-4 100997-68-0 108060-85-1 137248-64-7 207340-54-3 207340-56-5 207340-58-7 induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method
65-46-3 73-40-5 RNA nucleoside analog replacement of; induction of viral mutation by incorporation of miscoding ribonucleoside analogs into viral RNA, and screening method

2/7/8 (Item 8 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

119117712 CA: 119(11)117712a JOURNAL
Synthesis of cyclo pyrrolopyrimidine nucleoside analogs
AUTHOR(S): Ibrahim, E. S.; Islam, I. E.; Abbasi, M. A.
LOCATION: Dep. Chem., Univ. Suez Canal, El-Azhar, Egypt,
JOURNAL: Delta J. Sci. DATE: 1991 VOLUME: 15 NUMBER: 2 PAGES: 110-21
CODEN: DJSCES ISSN: 1012-5965 LANGUAGE: English
SECTION:
CA233009 Carbohydrates
IDENTIFIERS: cyclo pyrrolopyrimidine deoxyribonucleoside analog, regioselective halogenation deoxyribonucleoside, nucleoside deoxyribo intramol cyclocondensation, cyclonucleoside pyrrolopyrimidine deoxyribo analog
DESCRIPTORS:
Nucleosides,pyrrolopyrimidine,preparation...
cyclo-, prepn. of
Cyclocondensation reaction,intramol.... Halogenation,regioselective...
of deoxyribonucleosides
Regiochemistry...
of halogenation of deoxyribonucleosides
CAS REGISTRY NUMBERS:
143919-23-7P 143919-24-8P 143919-25-9P 143919-26-0P prepn. and intramol. cyclocondensation of, pyrrolopyrimidines cyclonucleoside

analogs from
507-16-4P 144028-17-[redacted] 144028-18-2P prepn. of
15676-19-4 83379-28-6 regioselective halogenation of

2/7/10 (Item 10 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

110185406 CA: 110(21)185406t JOURNAL
Anti-herpes simplex virus activity of 5-substituted 2-pyrimidinone nucleosides
AUTHOR(S): Lewandowski, Gail A.; Grill, Susan P.; Fisher, Michael H.; Dutschman, Ginger E.; Efange, Simon M. N.; Bardos, Thomas J.; Cheng, Yung Chi
LOCATION: Sch. Med., Univ. North Carolina, Chapel Hill, NC, 26599-7365, USA
JOURNAL: Antimicrob. Agents Chemother. DATE: 1989 VOLUME: 33 NUMBER: 3
PAGES: 340-4 CODEN: AMACCQ ISSN: 0066-4804 LANGUAGE: English
SECTION:
CA201005 Pharmacology
IDENTIFIERS: herpes virucide pyrimidinone deoxyribonucleoside analog
DESCRIPTORS:
Virus,animal, herpes simplex 1... Virus,animal, herpes simplex 2...
inhibition of, by pyrimidinone deoxyribonucleoside analogs
Molecular structure-biological activity relationship,virucidal...
of pyrimidinone deoxyribonucleoside analogs
Microbicidal and microbiostatic action,virucidal...
of pyrimidinone deoxyribonucleoside analogs, against herpes simplex viruses
CAS REGISTRY NUMBERS:
22003-31-2 93265-81-7 93265-82-8 101803-16-1 herpes simplex virus inhibition by
9002-06-6 9002-17-9 9012-90-2 in herpes simplex virus inhibition by pyrimidinone deoxyribonucleoside analogs
? t s2/3,ab/14

```
File 410:Chronolog(R)  1981-1999 Sep/Oct
       (c) 1999 The Dialog Corporation plc

      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi
HILIGHT set on as ''
HILIGHT set on as ''
? b 155, 5, 399, 357, 654
       03nov99 10:30:31 User233835 Session D322.2
            $0.00    0.047 DialUnits File410
     $0.00  Estimated cost File410
     $0.07  TELNET
     $0.07  Estimated cost this search
     $0.26  Estimated total session cost   0.102 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1999/Dec W4
         (c) format only 1999 Dialog Corporation
*File 155: Medline updates are complete for 1999.
First update for 2000 will be added in mid-December.
  File   5:Biosis Previews(R)  1969-1999/Oct W2
         (c) 1999 BIOSIS
  File 399:CA SEARCH(R)  1967-1999/UD=13118
         (c) 1999 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
  File 357:Derwent Biotechnology Abs  1982-1999/Sep B2
         (c) 1999 Derwent Publ Ltd
*File 357: Derwent changes DialUnit pricing from May 1, 1999.  See
HELP DERWENT for details.
  File 654:US Pat.Full.  1990-1999/Oct 26
         (c) format only 1999 The Dialog Corp.
*File 654: Reassignment data current through 07/09/99.

      Set  Items  Description
      ---  -----  -----------
? s (aminocyjtidine or ethenocytidine or methylcytidine or hydroxycytidine or
dimethylcytidine or hydroxyehtylcytidine or chlorocytidine or bromocytidine
or aminocytidine or nitrosocytidine or hydroxyalkylcytidine or thioalkyl
cytidine or (cytidine(w)glycol) or hydroxyuridine or hydroxyethyluridine)
>>>Command is too long.
? s (aminocyjtidine or ethenocytidine or methylcytidine or hydroxycytidine or
dimethylcytidine or hydroxyehtylcytidine or chlorocytidine or bromocytidine
or aminocytidine or nitrosocytidine)
<------User Break------>
u!
? s (aminocytidine or ethenocytidine or methylcytidine or hydroxycytidine or
dimethylcytidine or hydroxyethylcytidine or chlorocytidine or bromocytidine
or aminocytidine or nitrosocytidine)
             94  AMINOCYTIDINE
             77  ETHENOCYTIDINE
            589  METHYLCYTIDINE
             71  HYDROXYCYTIDINE
             12  DIMETHYLCYTIDINE
              2  HYDROXYETHYLCYTIDINE
             20  CHLOROCYTIDINE
             34  BROMOCYTIDINE
```

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              94  AMINOCYTIDINE
               1  NITROSOCYTIDINE
      S1     861  (AMINOCYTIDINE OR ETHENOCYTIDINE OR METHYLCYTIDINE OR
                  HYDROXYCYTIDINE OR DIMETHYLCYTIDINE OR
                  HYDROXYETHYLCYTIDINE OR CHLOROCYTIDINE OR BROMOCYTIDINE
                  OR AMINOCYTIDINE OR NITROSOCYTIDINE)
? s (hydroxyalkylcytidine or thioalkyl cytidine or (cytidine(w)glycol) or
hydroxyuridine or hydroxyethyluridine)
               0  HYDROXYALKYLCYTIDINE
               0  THIOALKYL CYTIDINE
           17538  CYTIDINE
          212280  GLYCOL
               1  CYTIDINE(W)GLYCOL
              93  HYDROXYURIDINE
               1  HYDROXYETHYLURIDINE
      S2      95  (HYDROXYALKYLCYTIDINE OR THIOALKYL CYTIDINE OR
                  (CYTIDINE(W)GLYCOL) OR HYDROXYURIDINE OR
                  HYDROXYETHYLURIDINE)
? s s1 or s2
             861  S1
              95  S2
      S3     946  S1 OR S2
? s methyluridine or ethyluridine or aminouridine or methyluridine or
ethyluridine or isobutyluridine or alkyluridine or nitrosouridine or
hydroxyalkyluridine or thioalkyluridine
             640  METHYLURIDINE
              90  ETHYLURIDINE
              77  AMINOURIDINE
             640  METHYLURIDINE
              90  ETHYLURIDINE
               1  ISOBUTYLURIDINE
              35  ALKYLURIDINE
               0  NITROSOURIDINE
               2  HYDROXYALKYLURIDINE
               4  THIOALKYLURIDINE
      S4     815  METHYLURIDINE OR ETHYLURIDINE OR AMINOURIDINE OR
                  METHYLURIDINE OR ETHYLURIDINE OR ISOBUTYLURIDINE OR
                  ALKYLURIDINE OR NITROSOURIDINE OR HYDROXYALKYLURIDINE OR
                  THIOALKYLURIDINE
? s s3 or s4
             946  S3
             815  S4
      S5    1612  S3 OR S4
? s ethenoadenosine or methyladenosine or hydroxyguanosine or methylguanosine
or ethylguanosine or isopropylguanosine or ethenoguanosine or alkylguanosine
or oxoguanosine or ethenoguanosine or aminoguanosine
             684  ETHENOADENOSINE
             979  METHYLADENOSINE
             132  HYDROXYGUANOSINE
            1303  METHYLGUANOSINE
              48  ETHYLGUANOSINE
               2  ISOPROPYLGUANOSINE
              35  ETHENOGUANOSINE
              35  ALKYLGUANOSINE
             213  OXOGUANOSINE
              35  ETHENOGUANOSINE
             187  AMINOGUANOSINE
      S6    3344  ETHENOADENOSINE OR METHYLADENOSINE OR HYDROXYGUANOSINE OR
                  METHYLGUANOSINE OR ETHYLGUANOSINE OR ISOPROPYLGUANOSINE
                  OR ETHENOGUANOSINE OR ALKYLGUANOSINE OR OXOGUANOSINE OR
                  ETHENOGUANOSINE OR AMINOGUANOSINE
? s s6 or s5
            3344  S6
            1612  S5
      S7    4722  S6 OR S5
```

```
? s s7 and (mutate or mutation) and (virus or phage)
          4722  S7
          1339  MUTATE
        376161  MUTATION
        889187  VIRUS
         98317  PHAGE
     S8    102  S7 AND (MUTATE OR MUTATION) AND (VIRUS OR PHAGE)
? rd
>>>Duplicate detection is not supported for File 654.

>>>Records from unsupported files will be retained in the RD set.
...examined 50 records  (50)
...examined 50 records  (100)
...completed examining records
     S9     94  RD (unique items)
? t s9/6/1-94

 9/6/1     (Item 1 from file: 155)
10025314   99307378
  mRNA cap recognition: dominant role of enhanced stacking interactions
between methylated bases and protein aromatic side chains.
Jun 22 1999


 9/6/2     (Item 2 from file: 155)
08922034   97138336
   Critical residues of Semliki Forest virus RNA capping enzyme
involved in methyltransferase and guanylyltransferase-like activities.
Jan 1997


 9/6/3     (Item 3 from file: 155)
07677386   94047363
  Minimum internal ribosome entry site required for poliovirus infectivity.
Dec 1993


 9/6/4     (Item 4 from file: 155)
07327444   92326820
   Analysis of phage M13mp2 mutants produced from transfection of
phage DNA having N4-aminocytosines at defined sequence positions.
Jul 1992


 9/6/5     (Item 5 from file: 155)
06474525   90331136
  Molecular mechanism of N4-aminocytidine mutagenesis]
May 1990


 9/6/6     (Item 6 from file: 155)
06231772   86037468
  Mutagenesis of bacteriophage T7 and T7 DNA by alkylation damage.
Nov 1985


 9/6/7     (Item 7 from file: 155)
06108741   87137626
   Inhibition of methylation at two internal N6-methyladenosine sites
caused by GAC to GAU mutations.
Mar 5 1987


 9/6/8     (Item 8 from file: 155)
06027482   86104233
```

Mutagenesis by N4-**aminocytidine**: induction of AT to GC transition and its molecular mechanism.
Dec 3 1985

9/6/9 (Item 9 from file: 155)
06024793 86025596
Induction of **mutation** in vitro in **phage** phi X174 am3 by N4-aminodeoxycytidine triphosphate.
Sep 30 1985

9/6/10 (Item 10 from file: 155)
05706663 89178685
Spectrum of N4-**aminocytidine** mutagenesis.
Feb 20 1989

9/6/11 (Item 11 from file: 155)
05030724 87172841
Mutagenicity of N4-**aminocytidine** and its derivatives in Chinese hamster lung V79 cells. Incorporation of N4-aminocytosine into cellular DNA.
Apr 1987

9/6/12 (Item 12 from file: 155)
04880177 86117939
Ability of base analogs to induce the SOS response: effect of a dam **mutation** and mismatch repair system.
1985

9/6/13 (Item 13 from file: 155)
04811455 85215533
Single stranded DNA SP6 promoter plasmids for engineering mutant RNAs and proteins: synthesis of a 'stretched' preproparathyroid hormone.
Feb 25 1985

9/6/14 (Item 14 from file: 155)
04325274 83272964
N4-**aminocytidine** , a nucleoside analog that has an exceptionally high mutagenic activity.
Aug 11 1983

9/6/15 (Item 15 from file: 155)
04311168 82117035
The cell-free protein synthesis system from the 'slime' mutant of Neurospora crassa. Preparation and characterisation of importance of 7-**methylguanosine** for translation of viral and cellular mRNAs.
Dec 1981

9/6/16 (Item 16 from file: 155)
04269484 83303820
Specific inhibition of vaccinia **virus** growth by 2'-O-**methyladenosine**: isolation of a drug-resistant **virus** mutant.
Jul 30 1983

9/6/17 (Item 17 from file: 155)
03291032 80165303
Mutagenic specificity of N4-**hydroxycytidine**.

Mar 1980

9/6/18 (Item 18 from file: 155)
03202423 76112547
Bacterial RNA methyltransferase mutants: tools in studying the biosynthesis of **phage** T4 tRNA. pp. 53-66.

9/6/19 (Item 19 from file: 155)
02309824 76007790
Identification of bacteriophage T4-specific precursor tRNA by using a host mutant defective in the methylation of tRNA.
Sep 1975

9/6/20 (Item 1 from file: 5)
05064909 BIOSIS NO.: 000081023033
INDUCTION OF **MUTATION** IN-VITRO IN **PHAGE** PHI-X-174 AM-3 BY N-4 AMINODEOXY-CTP
1985

9/6/21 (Item 2 from file: 5)
04281543 BIOSIS NO.: 000078011085
A RAPID AND SIMPLE METHOD FOR THE DETERMINATION OF BASE SUBSTITUTION AND FRAMESHIFT SPECIFICITY OF MUTAGENS
1983

9/6/22 (Item 3 from file: 5)
04192670 BIOSIS NO.: 000077018714
DO DNA REPAIR SYSTEMS AFFECT N-4 HYDROXY CYTIDINE INDUCED MUTAGENESIS
1983

9/6/23 (Item 4 from file: 5)
03894116 BIOSIS NO.: 000075072189
EFFECT OF PROOFREADING AND DAM INSTRUCTED MISMATCH REPAIR SYSTEMS ON N-4 HYDROXY CYTIDINE INDUCED MUTAGENESIS
1982

9/6/24 (Item 1 from file: 399)

Induction of mutation in vitro in phage .vphi.X174 am3 by N4-aminodeoxycytidine triphosphate

9/6/25 (Item 2 from file: 399)

Effect of proofreading and dam-instructed mismatch repair systems on N4-hydroxycytidine-induced mutagenesis

9/6/26 (Item 3 from file: 399)

9/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10025314 99307378
mRNA cap recognition: dominant role of enhanced stacking interactions between methylated bases and protein aromatic side chains.
Hu G; Gershon PD; Hodel AE; Quiocho FA
Graduate Program in Structural and Computational Biology and Molecular Biophysics, Baylor College of Medicine, Houston, TX 77030, USA.
Proc Natl Acad Sci U S A (UNITED STATES) Jun 22 1999, 96 (13) p7149-54, ISSN 0027-8424 Journal Code: PV3
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We have determined, by high resolution x-ray analysis, 10 structures comprising the mRNA cap-specific methyltransferase VP39 or specific mutants thereof in the presence of methylated nucleobase analogs (N1-methyladenine, N3-methyladenine, N1-methylcytosine, N3-methylcytosine) and their unmethylated counterparts, or nucleoside N7-**methylguanosine**. Together with solution affinity studies and previous crystallographic data for N7-**methylguanosine** and its phosphorylated derivatives, these data demonstrate that only methylated, positively charged bases are bound, indicating that their enhanced stacking with two aromatic side chains of VP39 (Tyr 22 and Phe 180) plays a dominant role in cap recognition. Four key features characterize this stacking interaction: (i) near perfect parallel alignment between the sandwiched methylated bases and aromatic side chains, (ii) substantial areas of overlap in the two-stacked rings, (iii) a 3.4-A interplanar spacing within the overlapping region, and (iv) positive charge in the heterocyclic nucleobase.

9/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08922034 97138336
Critical residues of Semliki Forest **virus** RNA capping enzyme involved in methyltransferase and guanylyltransferase-like activities.
Ahola T; Laakkonen P; Vihinen H; Kaariainen L
Institute of Biotechnology, University of Helsinki, Finland. tero.ahola@helsinki.fi
J Virol (UNITED STATES) Jan 1997, 71 (1) p392-7, ISSN 0022-538X Journal Code: KCV
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The Semliki Forest **virus** (SFV) replicase protein nsP1 has methyltransferase (MT) and guanylyltransferase-like (GT) activities, which are involved in the capping of viral mRNAs. MT catalyzes the transfer of the methyl group from S-adenosylmethionine (AdoMet) to position 7 of GTP, and this reaction is followed by GT-catalyzed formation of the covalent complex m7GMP-nsP1. These reactions are **virus** specific and thus potential targets for inhibitors of **virus** replication. We have mutated residues of SFV nsP1, which are conserved in related proteins of the large alphavirus-like superfamily. Mutations of D64, D90, R93, C135, C142, and Y249 to alanine destroyed or greatly reduced the MT activity of nsP1. All MT-negative mutants lost also the GT activity, confirming that methylation of GTP is an essential prerequisite for the synthesis of the covalent guanylate complex. **Mutation** of H38 prevented the GT reaction

without destroying MT activity. Conservation of residues essential for both reactions in the alphavirus-like superfamily implies that they use a capping mechanism similar to that for the alphaviruses. Residues D64 and D90 were necessary for AdoMet binding, as measured by UV cross-linking. Secondary structure predictions of nsP1 and other proteins of the superfamily place these residues in positions corresponding to AdoMet-binding sites of cellular methyltransferases, suggesting that they all may be structurally related.

9/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07677386 94047363
Minimum internal ribosome entry site required for poliovirus infectivity.
Haller AA; Nguyen JH; Semler BL
Department of Microbiology and Molecular Genetics, College of Medicine, University of California, Irvine 92717.
J Virol (UNITED STATES) Dec 1993, 67 (12) p7461-71, ISSN 0022-538X Journal Code: KCV
Contract/Grant No.: AI26765, AI, NIAID; GM 07134-18, GM, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Translation initiation by internal ribosome binding is a recently discovered mechanism of eukaryotic viral and cellular protein synthesis in which ribosome subunits interact with the mRNAs at internal sites in the 5' untranslated RNA sequences and not with the 5' **methylguanosine** cap structure present at the extreme 5' ends of mRNA molecules. Uncapped poliovirus mRNAs harbor internal ribosome entry sites (IRES) in their long and highly structured 5' noncoding regions. Such IRES sequences are required for viral protein synthesis. In this study, a novel poliovirus was isolated whose genomic RNA contains two gross deletions removing approximately 100 nucleotides from the predicted IRES sequences within the 5' noncoding region. The deletions originated from previously in vivo-selected viral revertants displaying non-temperature-sensitive phenotypes. Each revertant had a different predicted stem-loop structure within the 5' noncoding region of their genomic RNAs deleted. The mutant poliovirus (Se1-5NC-delta DG) described in this study contains both stem-loop deletions in a single RNA genome, thereby creating a minimum IRES. Se1-5NC-delta DG exhibited slow growth and a pinpoint plaque phenotype following infection of HeLa cells, delayed onset of protein synthesis in vivo, and defective initiation during in vitro translation of the mutated poliovirus mRNAs. Interestingly, the peak levels of viral RNA synthesis in cells infected with Se1-5NC-delta DG occurred at slightly later times in infection than those achieved by wild-type poliovirus, but these mutant **virus** RNAs accumulated in the host cells during the late phases of **virus** infection. UV cross-linking assays with the 5' noncoding regions of wild-type and mutated RNAs were carried out in cytoplasmic extracts from HeLa cells and neuronal cells and in reticulocyte lysates to identify the cellular factors that interact with the putative IRES elements. The cellular proteins that were cross-linked to the minimum IRES may represent factors playing an essential role in internal translation initiation of poliovirus mRNAs.

9/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07327444 92326820
Analysis of **phage** M13mp2 mutants produced from transfection of **phage** DNA having N4-aminocytosines at defined sequence positions.
Matsumoto K; Yashiki T; Bessho T; Negishi K; Hayatsu H
Faculty of Pharmaceutical Sciences, Okayama University, Japan.

Mutat Res (NETHERLANDS) Jul 1992, 268 (1) p59-64, ISSN 0027-5107
Journal Code: NNA
Languages: ENGLISH
Document type: JOURNAL ARTICLE

N4-**Aminocytidine** is mutagenic in various organisms. In the cell, this cytidine analog is metabolized into N4-aminodeoxycytidine 5'-triphosphate, which will then be incorporated into DNA and **mutation** will result during the replication of the DNA. To prove that the N4-aminocytosine residue in DNA is indeed the site of mutagenesis, we prepared a series of **phage** M13mp2 DNA samples that bear N4-aminocytosine residues at a few defined positions in the lacZ alpha region, by carrying out in vitro limited extension of primed **phage** DNA. We then transfected the DNAs to Escherichia coli and examined the progeny phages for the forward mutations. The M13mp2 DNAs bearing N4-aminocytosines produced mutant phages at high frequencies. Furthermore, DNA sequencing of the resulting mutants demonstrated that both AT-to-GC and GC-to-AT mutations took place at those positions where N4-aminocytosine residues were originally present.

9/7/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06474525 90331136
Molecular mechanism of N4-**aminocytidine** mutagenesis]
Negishi K
Gene Research Center, Okayama University, Japan.
Yakugaku Zasshi (JAPAN) May 1990, 110 (5) p293-303, ISSN 0031-6903
Journal Code: JON
Languages: JAPANESE Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL English Abstract

N4-**Aminocytidine** is strongly mutagenic towards E. coli, S. typhimurium, B. subtilis and coliphages phi X174 and M13mp2. It also causes mutations in mammalian cell lines and somatic cell mutations in D. melanogaster. The sequence analysis of deoxyribonucleic acid (DNA) from mutated phages revealed that N4-**aminocytidine** induces both adenine-thymine (AT) to guanine-cytosine (GC) and GC to AT transitions. No transversions are detectable. When E. coli and the mammalian cells were cultured in the presence of [3H]-N4-**aminocytidine**, [3H]-N4-aminodeoxycytidine was found in their DNA. It is likely that N4-**aminocytidine** is metabolized within the cells into N4-aminodeoxy-cytidine 5'-triphosphate (dCamTP), which is then incorporated into DNA, thereby causing base-pair transitions. To prove this hypothesis, we studied the incorporation of dCamTP into polynucleotides in the in vitro DNA synthesis catalyzed by E. coli DNA polymerase I large fragment (Klenow enzyme) and DNA polymerase alpha from a mouse cell line. Both polymerases catalyze incorporation of dCamTP into DNA efficiently in place of dCTP opposite guanine, and less efficiently, but to a significant extent, in place of dTTP opposite adenine. These observations prove the erroneous nature of dCamTP as a substrate for DNA synthesis. DNA containing N4-aminocytosine was prepared by the incorporation of dCamTP into single-stranded **phage** DNA annealed to complementary oligonucleotides. The DNA was transfected to E. coli cells. The analysis of progeny phages indicates that N4-aminocytosine residue in DNA causes A to G or G to A **mutation** in the position opposite to the site where N4-aminocytosine should be incorporated. (33 Refs.)

9/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06231772 86037468

Mutagenesis of bacteriophage T7 and T7 DNA by alkylation damage.
Masker WE; Dodson L[redacted]Maupin M
J Virol (UNITED STATES) Nov 1985, 56 (2) p644-6, ISSN 0022-538X Journal Code: KCV
Contract/Grant No.: GM-28113, GM, NIGMS; GM-7438, GM, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We have developed a new assay for in vitro mutagenesis of bacteriophage T7 DNA that measures the generation of mutations in the specific T7 gene that codes for the **phage** ligase. This assay was used to examine mutagenesis caused by in vitro DNA synthesis in the presence of O6-**methylguanosine** triphosphate. Reversion of one of the newly generated ligase mutants by ethyl methanesulfonate was also tested.

9/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06108741 87137626
Inhibition of methylation at two internal N6-**methyladenosine** sites caused by GAC to GAU mutations.
Kane SE; Beemon K
J Biol Chem (UNITED STATES) Mar 5 1987, 262 (7) p3422-7, ISSN 0021-9258 Journal Code: HIV
Contract/Grant No.: CA33199, CA, NCI; S07 RRO 7041
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We previously have mapped N6-**methyladenosine** (m6A) sites within the genomic RNA of Rous sarcoma **virus** (RSV). The results of that study and of experiments using inhibitors of methylation suggest that m6A might be involved in mRNA processing events. We describe an approach for directly analyzing the function of m6A in RNA and for studying the sequence specificity of the m6A methylase. Two sites of methylation in RSV (nucleotides 7414 and 7424) were altered by oligonucleotide-directed mutagenesis. The highly conserved GAC consensus sequence at those sites was changed to GAU. The new sequences were no longer methylated in the RSV genomic RNA; the GAC sequence was required for efficient base modification at those two adenosines. The altered m6A pattern did not affect viral RNA processing or the viral life cycle within infected cells.

9/7/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06027482 86104233
Mutagenesis by N4-**aminocytidine**: induction of AT to GC transition and its molecular mechanism.
Negishi K; Takahashi M; Yamashita Y; Nishizawa M; Hayatsu H
Biochemistry (UNITED STATES) Dec 3 1985, 24 (25) p7273-8, ISSN 0006-2960 Journal Code: A0G
Languages: ENGLISH
Document type: JOURNAL ARTICLE
N4-**Aminocytidine** is a potent mutagen toward Escherichia coli and Salmonella typhimurium. It induced reversion of an amber mutant of phi X174 **phage** (am3) to the wild type. This reversion was shown to be exclusively due to the AT to GC transition. It is likely that N4-**aminocytidine** is metabolized within the bacterial cells into N4-aminodeoxycytidine 5'-triphosphate and this nucleotide is incorporated into DNA during the multiplication of the cells and the phages, thereby causing base-pair transitions. The molecular basis for this erroneous replication was obtained in studies of in vitro incorporation of N4-aminodeoxycytidine 5'-triphosphate into polynucleotides catalyzed by the E. coli DNA polymerase I large fragment. The results have shown that this

cytosine analogue can be efficiently incorporated as a substitute of cytosine and that it can also be incorporated as a substitute of thymine. The ratio in the rate of the N4-aminocytosine nucleotide incorporation to that of natural nucleotide incorporation was 1/2 to cytosine and 1/30 to thymine. Furthermore, the N4-aminocytosine residues in the polynucleotide templates can be read by the enzyme as efficiently as cytosines, and guanines were incorporated opposite to them.

9/7/9 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06024793 86025596
Induction of **mutation** in vitro in **phage** phi X174 am3 by N4-aminodeoxycytidine triphosphate.
Takahashi M; Negishi K; Hayatsu H
Biochem Biophys Res Commun (UNITED STATES) Sep 30 1985, 131 (3) p1277-83, ISSN 0006-291X Journal Code: 9Y8
Languages: ENGLISH
Document type: JOURNAL ARTICLE
When phi X174 am3-**phage**-infected E. coli is treated with N4-**aminocytidine**, reversion of the **phage** to the wild type is efficiently induced. The mechanism of this reversion is considered to consist of metabolic conversion of N4-**aminocytidine** into its deoxynucleoside 5'-triphosphate followed by incorporation of the nucleotide into the replicating **phage** DNA, thereby causing AT-to-GC transition at the am3 locus. The second half of this mechanism has now been experimentally proved, using an in vitro mutagenesis system. Thus, by nick-translation, N4-aminodeoxycytidine 5'-triphosphate was incorporated into the replicative form of phi X174 am3 DNA, and the DNA was used to transfect CA++-treated E. coli HF4714 (sup+). The reversion frequency of the **phage** produced was up to one-order of magnitude greater than that of the control in which the nick-translation had been done without the addition of N4-aminodeoxycytidine triphosphate. This nucleotide analog may be useful as a reagent for in vitro site-directed mutagenesis.

9/7/10 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05706663 89178685
Spectrum of N4-**aminocytidine** mutagenesis.
Bessho T; Matsumoto K; Nomura A; Hayatsu H; Negishi K
Faculty of Pharmaceutical Sciences, Okayama University, Japan.
J Mol Biol (ENGLAND) Feb 20 1989, 205 (4) p659-64, ISSN 0022-2836 Journal Code: J6V
Languages: ENGLISH
Document type: JOURNAL ARTICLE
N4-**Aminocytidine** , a nucleoside analog, is a potent mutagen towards phages, bacteria, Drosophila and mammalian cells in culture. In vitro, biochemical studies indicate that this reagent acts by being incorporated into DNA. To elucidate the mechanism of N4-**aminocytidine** mutagenesis, it is essential to identify the nature of DNA sequence alterations taking place during the mutagenesis. We have analyzed the nucleotide sequence changes in the lac promoter-lacZ alpha region of M13mp2 **phage** induced by treatment of **phage**-infected Escherichia coli with N4-**aminocytidine** . The sequence alterations of DNA samples from 89 mutants of the **phage** were determined. These mutants had single point mutations, except one mutant, in which a double point **mutation** was detected. Several hot spots were found: however, there are no apparent relations to particular DNA sequences regarding the locations of these spots. All the mutations are transitions; neither transversions nor deletions/insertions were found. A feature in these transitions is that the

A/T to G/C and G/C to A/T changes occur at approximately equal rates. The overall picture of [redacted] mutagenesis is consistent with a scheme in which misincorporation and misreplication caused by the modified cytosine structure are the key steps in the DNA replication leading to transitions. Similar nucleotide alterations were found for the mutagenesis induced by an alkylated derivative, N'-methyl-N4-**aminocytidine**. N4-**Aminocytidine** also induced reversions of these mutants; both A/T to G/C and G/C to A/T transitions again took place.

9/7/11 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05030724 87172841
Mutagenicity of N4-**aminocytidine** and its derivatives in Chinese hamster lung V79 cells. Incorporation of N4-aminocytosine into cellular DNA.
Nomura A; Negishi K; Hayatsu H; Kuroda Y
Mutat Res (NETHERLANDS) Apr 1987, 177 (2) p283-7, ISSN 0027-5107
Journal Code: NNA
Languages: ENGLISH
Document type: JOURNAL ARTICLE
N4-**Aminocytidine** induced **mutation** to 6-thioguanine resistance in Chinese hamster lung V79 cells in culture. Previous studies with experimental systems of in vitro DNA synthesis and of **phage** and bacterial mutagenesis have shown that this nucleoside analog induces base-pair transitions through its incorporation into DNA, with its erroneous base-pairing property. Incorporation of exogenously added [5-3H]N4-**aminocytidine** into the DNA of V79 cells was in fact observed in the present study. N4-Aminodeoxycytidine was not mutagenic for the V79 cells. Several alkylated N4-**aminocytidine** derivatives were tested for their mutagenicity in this system. Those with an alkyl group on the N'-nitrogen of the hydrazino group at position 4 of N4-**aminocytidine** were mutagenic, but those having an alkyl on the N4-nitrogen were not. These results are consistent with those previously observed in the bacterial mutagenesis systems, and agree with a mechanism of **mutation** in which a tautomerization of N4-aminocytosine is the necessary step for causing the erroneous base pairing.

9/7/12 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04880177 86117939
Ability of base analogs to induce the SOS response: effect of a dam **mutation** and mismatch repair system.
Bebenek K; Janion C
Mol Gen Genet (GERMANY, WEST) 1985, 201 (3) p519-24, ISSN 0026-8925
Journal Code: NGP
Languages: ENGLISH
Document type: JOURNAL ARTICLE
2-Aminopurine, 2-amino-N6-hydroxyadenine, 2-amino-N6-methoxyadenine and 2-amino-N6-methyl-N6-hydroxyadenine (but not N4-**hydroxycytidine**), strong mutagens of base analog type, may induce the SOS response in E. coli cells. This ability is greatly enhanced in dam3 mutants and abolished in dam3mutS, dam3mutH, and dam3mutL strains, thereby suggesting that the mismatch repair system is involved in the mechanism of induction.

9/7/13 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04811455 85215533
Single stranded DNA [redacted]6 promoter plasmids for engine[redacted]ng mutant RNAs and proteins: synthesis of a 'stretched' preproparathyroid hormone.
Mead DA; Skorupa ES; Kemper B
Nucleic Acids Res (ENGLAND) Feb 25 1985, 13 (4) p1103-18, ISSN 0305-1048 Journal Code: O8L
Contract/Grant No.: AM 18866, AM, NIADDK
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The intergenic region of bacteriophage f1 has been subcloned into the bacteriophage SP6 promoter plasmids, pSP64 and pSP65, in both orientations. Coinfection of E. coli with these SP6 promoter/**phage** f1 chimeric plasmids and the interference resistance **phage**, IR1, results in the replication and secretion of the pSP6.f1 plasmids as single stranded DNA. Bovine preProPTH cDNAs in both the native form and a form containing an insertion of 117 base pairs in the protein coding region have been inserted in these plasmids. The RNA transcribed from the SP6.f1/preProPTH cDNA constructs was efficiently translated in the wheat germ or reticulocyte cell free systems without addition of a 7-**methylguanosine** cap to the RNA. In the presence of dog pancreatic or chicken oviduct microsomal membranes, conversion of the resultant pre-proteins to pro-proteins was observed. Confirmation of the "mutated" preProPTH cDNA was determined by dideoxyribonucleotide DNA sequencing of single stranded plasmid DNA. These vectors are suitable for the efficient biosynthesis of large amounts of single or double stranded DNA, and translationally active RNA. The combined properties of single stranded DNA replication and the SP6 promoter simplify the engineering of mutant RNAs and their corresponding proteins. In addition, single stranded DNA or RNA corresponding to either complementary strand may be synthesized as nucleic acid hybridization probes.

9/7/14 (Item 14 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04325274 83272964
N4-**aminocytidine** , a nucleoside analog that has an exceptionally high mutagenic activity.
Negishi K; Harada C; Ohara Y; Oohara K; Nitta N; Hayatsu H
Nucleic Acids Res (ENGLAND) Aug 11 1983, 11 (15) p5223-33, ISSN 0305-1048 Journal Code: O8L
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The reaction of cytidine with hydrazine to give N4-**aminocytidine** was greatly promoted by addition of a less-than-stoichiometric amount of bisulfite, and the product was isolated in a good yield. N4-**Aminocytidine** was strongly mutagenic to bacteria (Salmonella typhimurium TA100 and TA1535, and E. coli WP2 uvrA) and to **phage** (phi X174 am3). The activity did not require the presence of mammalian microsomal fraction in the system. The mutagenic potency of N4-**aminocytidine** in these systems was two orders of magnitude greater than that of N4-amino-2'-deoxycytidine, and more than two orders of magnitude greater than that of N4-**hydroxycytidine** . The greater activity of the riboside than the deoxyriboside was ascribed to the lack of deoxycytidine kinase in these cells. This compound may be useful as a powerful mutagen to induce a transition **mutation** in microorganisms.

9/7/15 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04311168 82117035
The cell-free protein synthesis system from the 'slime' mutant of Neurospora crassa. Preparation and characterisation of importance of 7-

methylguanosine for translation of viral and cellular mRNAs.
Szczesna-Skorupa E; [redacted]lipowicz W; Paszewski A
Eur J Biochem (GERMANY, WEST) Dec 1981, 121 (1) p163-8, ISSN 0014-2956 Journal Code: EMZ
Languages: ENGLISH
Document type: JOURNAL ARTICLE
A simple procedure for preparation of a cell-free protein synthesis system (23000 X g supernatant) from the protoplast-like 'slime' mutant of Neurospora crassa is described. A variety of messenger RNAs of viral and cellular origin could be efficiently and faithfully translated in this system into proteins with Mr as large as 180000. The importance of the 7-**methylguanosine** cap for mRNA translation in the Neurospora system was studied in detail using the cap analogs and chemically decapped messengers. As in the case of reticulocyte lysate or wheat germ extract, the extent of m7G requirement for mRNA translation in a fungal extract strongly depended on translation conditions such as incubation temperature or concentration of potassium ions, mRNA and 23000 X g supernatant protein.

9/7/16 (Item 16 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04269484 83303820
Specific inhibition of vaccinia **virus** growth by 2'-O-**methyladenosine**: isolation of a drug-resistant **virus** mutant.
Raczynski P; Condit RC
Virology (UNITED STATES) Jul 30 1983, 128 (2) p458-62, ISSN 0042-6822 Journal Code: XEA
Contract/Grant No.: 5 RO1 AI 18094, AI, NIAID
Languages: ENGLISH
Document type: JOURNAL ARTICLE
2'-O-**methyladenosine** (Am) specifically inhibits growth of vaccinia **virus** on cultured monkey kidney (BSC40) cells. Specificity has been demonstrated by the isolation of an Am-resistant mutant of vaccinia which forms plaques on Am-treated monolayers of BSC40 cells under conditions where wild type (wt) plaque formation is inhibited. Am inhibits **virus** growth at an early stage of infection; host shut off and early **virus** protein synthesis are inhibited by the drug.

9/7/17 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03291032 80165303
Mutagenic specificity of N4-**hydroxycytidine**.
Sledziewska E; Janion C
Mutat Res (NETHERLANDS) Mar 1980, 70 (1) p11-6, ISSN 0027-5107 Journal Code: NNA
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The mutagenic specificty of (oh)4Cyd was examined with T4rII **phage** mutants which allow for discrimination between AT yields GC and GC yields AT base transitions. AT yields GC transitions were induced with a frequency 1-2 orders of magnitude higher than GC yields AT transitions. The mechanism of this preferential transition pathway is discussed in the light of base-analogue mutagenesis.

9/7/18 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03202423 76112547

Bacterial RNA methyltransferase mutants: tools in studying the biosynthesis of **phage** tRNA. pp. 53-66.
Bjork GR
In: Antoni F, Farago A, ed. Post-synthetic modification of macromolecules. Amsterdam, North-Holland, 1975. W3 FE322 9th 1974 v.34. (ITALY) Journal Code: IDM
NLM Call No.: W3 FE322 9th 1974 v.34
Languages: ENGLISH
Document type: MONOGRAPH

As a first step in the elucidation of the function of methylated nucleosides in the different kinds of RNA we have earlier isolated bacterial mutants defective in the methylation of RNA. We here report the usefulness of such mutants also as tools for studying the biosynthesis of **phage** T4 tRNA. The isolated mutants clearly established that the RNA methylases were not onlyspecific for the nucleoside made, but also the kind of RNA they used as substrates. This very strict specificity was utilized to identify T4 precursor tRNA. We employed E. coli mutants (Trm-) defective only in the biosynthesis of 5-**methyluridine** (m5U) in the tRNA to establish that T4-specific tRNA contains m5U, and that this modification absolutely requires a functional host tRNA(m5U)methyltransferase. This host enzyme does not seem to be subjected to **phage**-directed alterations as judged by investigations of several physical properties of the host enzyme before and after **phage** T4 infection. When **phage** T4 infected E. coli, an unknown methylated RNA species appeared. This RNA migrated between rRNA and 5S RNA in G200 gel filtration chromatography. The chain length of this unknown RNA is about twice the size of tRNA. The unknown RNA was only made in **phage** infected cells, it was metabolically unstable. This RNA is related to tRNA since it contains m5U when made in a wild type host, but lacking this methylated nucleoside if Trm- cells were used as host. This unknown methylated RNA is considered a dimeric precursor RNA TO T4 tRNA. The precursor RNA contained several fold higher level of 1-**methylguanosine** (m1G) as compared to the nature T4 tRNA population. By using host mutants defective in the production of m1G in rRNA it was unabigously shown that the RNA isolated as precursor molecules were not contaminated with degradation products of rRNA. Thus the presence of m1G in the dimeric molecules is a characteristic feature of the population of precursor molecules isolated by this method. The high level of m1G could be explained by the possibility that one tRNA counterpart in a dimeric precursor contained m1G and that this tRNA when fully mature is in minority in the tRNA population. The dimeric precursor RNA contained one m5U per tRNA counterpart. Thus, the bacterial tRNA(m51)methyltransferase uses a **phage** T4 specific dimeric precursor as substrate. Consequently the formation of m5U in the biosynthesis of **phage** tRNA and presumably host tRNA is occurring on at least a dimeric precursor RNA. This requires that two or more genes for bacterial tRNA must be located close to each other on the chromosome of E. coli to produce a true substrate for the tRNA(m5U)methyltransferase.

9/7/19 (Item 19 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02309824 76007790
Identification of bacteriophage T4-specific precursor tRNA by using a host mutant defective in the methylation of tRNA.
Bjork GR
J Virol (UNITED STATES) Sep 1975, 16 (3) p741-4, ISSN 0022-538X Journal Code: KCV
Languages: ENGLISH
Document type: JOURNAL ARTICLE

A mutant of Escherichia coli K-12 that is defective in the synthesis of 5-**methyluridine** (ribothymidine) in tRNA was used to identify precursors to **phage** T4-specific tRNA. The precursor molecules, isolated by gel filtration, were more than twice the size of tRNA. This

method is suitable for isolation of rather large amounts of such precursor molecules.

9/7/20 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05064909 BIOSIS NO.: 000081023033
INDUCTION OF **MUTATION** IN-VITRO IN **PHAGE** PHI-X-174 AM-3 BY N-4 AMINODEOXY-CTP

AUTHOR: TAKAHASHI M; NEGISHI K; HAYATSU H
AUTHOR ADDRESS: FAC. PHARMACEUTICAL SCI., OKAYAMA UNIV., TSUSHIMA, OKAYAMA 700, JPN.

JOURNAL: BIOCHEM BIOPHYS RES COMMUN 131 (3). 1985. 1277-1283.
FULL JOURNAL NAME: Biochemical and Biophysical Research Communications
CODEN: BBRCA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: When .PHI.X174 am3-**phage**-infected Escherichia coli is treated with N4-**aminocytidine**, reversion of the **phage** to the wild type is efficiently induced. The mechanism of this reversion is considered to consist of metabolic conversion of N4-**aminocytidine** into its deoxynucleoside 5'-triphosphate followed by incorporation of the nucleotide into the replicating **phage** DNA, thereby causing AT-to-GC transition at the am3 locus. The second half of this mechanism has now been experimentally proved, using an in vitro mutagenesis system. Thus, by nick-translation, N4-aminodeoxycytidine 5'-triphosphate was incorporated into the replicative form of .PHI.X174 am3 DNA, and the DNA was used to transfect Ca++-treated E. coli HF4714 (sup+). The reversion frequency of the **phage** produced was up to one-order of magnitude greater than that of the control in which the nick-translation had been done without the addition of N4-aminodeoxycytidine triphosphate. This nucleotide analog may be useful as a reagent for in vitro site-directed mutagenesis.

9/7/21 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04281543 BIOSIS NO.: 000078011085
A RAPID AND SIMPLE METHOD FOR THE DETERMINATION OF BASE SUBSTITUTION AND FRAMESHIFT SPECIFICITY OF MUTAGENS

AUTHOR: SHINOURA Y; KATO T; GLICKMAN B W
AUTHOR ADDRESS: DEP. FUNDAMENTAL RADIOLOGY, OSAKA UNIV. MED. SCH., OSAKA 530, JPN.

JOURNAL: MUTAT RES 111 (1). 1983. 43-50.
FULL JOURNAL NAME: Mutation Research
CODEN: MUREA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A rapid method for the determination of mutagenic specificity was developed with makes use of the ochre **mutation** (TAA) in the his-4-gene of Escherichia coli. Reversion to His+ may occur by suppressor **mutation** (Type I) or by **mutation** within the his-4 gene (Type II). The Type I mutations may be further subdivided with respect to the type of suppressor **mutation** by their ability to suppress nonsense mutants of bacteriophage T4, thus allowing the identification of the

responsible base substitution. The system has the ability to identify mutagens which produce A:T .fwdarw. G:C transitions since only Type II mutants can arise through this base substitution; and in fact, the system confirms the A:T .fwdarw. G:C specificity of the mutagen, N4-**hydroxycytidine** since only Type II mutants were induced by treatment with this base analog. When this system was further tested with several additional mutagens, ethyl methanesulfonate, methyl nitrosourea and ethyl nitrosourea seem to produce primarily Type I revertants which were primarily G:C .fwdarw. A:T transitions. UV-light .gamma.-rays 4NQO [4-nitroquinoline-N-oxide] and methyl methanesulfonate produced all types of base substitutions. The tester strain was further improved by introducing a series of sequenced trp- frameshift mutations, thus allowing the simultaneous monitoring of frameshift and base-substitution mutations.

9/7/22 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04192670 BIOSIS NO.: 000077018714
DO DNA REPAIR SYSTEMS AFFECT N-4 HYDROXY CYTIDINE INDUCED MUTAGENESIS

AUTHOR: SLEDZIEWSKA-GOJSKA E; JANION C
AUTHOR ADDRESS: INST. BIOCHEM. BIOPHYSICS, POLISH ACADEMY·SCI., RAKOWIECKA 36, 02-532 WARSZAWA, POLAND.

JOURNAL: ACTA BIOCHIM POL 30 (2). 1983. 149-158.
FULL JOURNAL NAME: Acta Biochimica Polonica
CODEN: ABPLA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: It was tested whether mutations induced in Escherichia coli by N4-**hydroxycytidine** (oh4Cyd) undergo **mutation** frequency decline (MFD) when synthesis of protein is arrested, and are influenced by polA1, polA107 or xth mutations. It was also investigated whether oh4Cyd provokes SOS response and prophage .lambda. induction. All these processes may involve the action of repair enzymes. None of these processes or repair enzymes affects oh4Cyd-induced mutagenesis.

9/7/23 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03894116 BIOSIS NO.: 000075072189
EFFECT OF PROOFREADING AND DAM INSTRUCTED MISMATCH REPAIR SYSTEMS ON N-4 HYDROXY CYTIDINE INDUCED MUTAGENESIS

AUTHOR: SLEDZIEWSKA-GOJSKA E; JANION C
AUTHOR ADDRESS: INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, POLISH ACADEMY OF SCIENCES, RAKOWIECKA 36, PL-02-532 WARSZAWA, POLAND.

JOURNAL: MOL GEN GENET 186 (3). 1982. 411-418.
FULL JOURNAL NAME: Molecular & General Genetics
CODEN: MGGEA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The role of the proofreading (3' .fwdarw. 5' exonuclease) function of **phage** T4 DNA polymerase and the mismatch repair system of Escherichia coli on N4-**hydroxycytidine** (oh4Cyd) induced mutagenesis was investigated. oh4Cyd-induced **mutation** is strongly suppressed when the proofreading activity increases as a result of the

presence of tsCB87-antimutator polymerase or elevated temperature (43.degree. C vs. 3[redacted]egree. C). Mutagenic activity [redacted]oh4Cyd, however, is little, if at all, affected by the presence of the tsLB56 mutator allele of T4 DNA polymerase with suppressed proofreading activity. The oh4C nucleotides are apparently not frequently removed by proofreading activity of wild-type T4 DNA polymerase. The number of mutations induced by oh4Cyd increases 3- to 5-fold due to damage of the genes mutS, mutL, uvrE, but not mutR. Dam- cells are more sensitive to, and hypermutable by, oh4Cyd in comparison with dam+ cells. This is compatible with the notion that oh4C residues are recognized and excised by mismatch repair enzymes. Neither the proofreading function of 4 DNA polymerase nor the mismatch repair enzymes are responsible for the high specificity of oh4Cyd which causes AT .fwdarw. GC transitions.

9/7/24 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

103208086 CA: 103(25)208086k JOURNAL
Induction of mutation in vitro in phage .vphi.X174 am3 by N4-aminodeoxycytidine triphosphate
AUTHOR(S): Takahashi, Mitsuko; Negishi, Kazuo; Hayatsu, Hikoya
LOCATION: Fac. Pharm. Sci., Okayama Univ., Okayama, Japan, 700
JOURNAL: Biochem. Biophys. Res. Commun. DATE: 1985 VOLUME: 131
NUMBER: 3 PAGES: 1277-83 CODEN: BBRCA9 ISSN: 0006-291X LANGUAGE: English
SECTION:
CA103005 Biochemical Genetics
IDENTIFIERS: phage phiX174 mutation aminocytidine triphosphate
DESCRIPTORS:
Mutation,amber...
aminocytidine-induced reversion of, in phage .vphi.X174
Virus,bacterial, phi X174...
DNA mutations of, aminocytidine and aminocytidine triphosphate induction of
Mutation,site-specific...
of phage .vphi.X174, aminocytidine induction of
Deoxyribonucleic acids...
of phage .vphi.X174, aminocytidine triphosphate incorporation into, site-directive mutations from
CAS REGISTRY NUMBERS:
57294-74-3 90335-46-9 mutations induced by, in phage .vphi.X174

9/7/25 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

97193992 CA: 97(23)193992j JOURNAL
Effect of proofreading and dam-instructed mismatch repair systems on N4-hydroxycytidine-induced mutagenesis
AUTHOR(S): Sledziewska-Gojska, Ewa; Janion, Celina
LOCATION: Inst. Biochem. Biophys., Pol. Acad. Sci., PL 02-532, Warsaw, Pol.
JOURNAL: MGG, Mol. Gen. Genet. DATE: 1982 VOLUME: 186 NUMBER: 3
PAGES: 411-18 CODEN: MGGEAE ISSN: 0026-8925 LANGUAGE: English
SECTION:
CA103005 Biochemical Genetics
IDENTIFIERS: T4 DNA polymerase repair hydroxycytidine, phage DNA polymerase repair hydroxycytidine, Escherichia mutation phage DNA polymerase
DESCRIPTORS:
Virus,bacterial, T4...
DNA polymerase of, proofreading function of, in mutagenesis in

Escherichia coli
Escherichia coli...
DNA repair by, in mutagenesis, phage T4 DNA polymerase proofreading function in relation to
Mutation...
DNA repair in, of Escherichia coli, phage T4 DNA polymerase proofreading function in relation to
Gene and Genetic element,microbial, dam...
in hydroxycytidine-induced mutation in Escherichia coli
Deoxyribonucleic acid formation,repair...
in mutation in Escherichia coli, phage T4 DNA polymerase proofreading function in relation to
CAS REGISTRY NUMBERS:
3258-02-4 mutation from, DNA polymerase proofreading function and mismatch repair in, in Escherichia coli
9012-90-2 proofreading function of, of phage T4, in mutagenesis in Escherichia coli

9/7/26 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

91169057 CA: 91(21)169057p JOURNAL
Mutagenesis induced in amber P22 phages by base analogs
AUTHOR(S): Janion, Celina; Kajtaniak, Elzbieta
LOCATION: Inst. Biochem. Biophys., Polish Acad. Sci., 02-532, Warsaw, Pol.
JOURNAL: Mutat. Res. DATE: 1979 VOLUME: 62 NUMBER: 1 PAGES: 191-5
CODEN: MUREAV ISSN: 0027-5107 LANGUAGE: English
SECTION:
CA003002 Biochemical Interactions
IDENTIFIERS: hydroxycytidine mutagenesis phage, cytidine analog mutagen bacteriophage
DESCRIPTORS:
Mutation...
from cytidine analogs, in bacteriophage P22
Virus,bacterial, P22...
mutations in, from cytidine analogs
CAS REGISTRY NUMBERS:
65-46-3D analog, mutagenic activity of, in bacteriophage P22
1867-16-9 1867-17-0 3258-02-4 mutagenic activity of, in bacteriophage P22
? t s9/3,ab/36, 37, 40, 55, 58, 68, 71, 84, 88, 89

9/3,AB/36 (Item 10 from file: 654)
DIALOG(R)File 654:US Pat.Full.

02994164
Utility
ADENOVIRUS HELPER-FREE SYSTEM FOR PRODUCING RECOMBINANT AAV VIRIONS LACKING ONCOGENIC SEQUENCES

PATENT NO.: 5,945,335
ISSUED: August 31, 1999 (19990831)
INVENTOR(s): Colosi, Peter, Alameda, CA (California), US (United States of America)
ASSIGNEE(s): Avigen, Inc , (A U.S. Company or Corporation), Alameda, CA (California), US (United States of America)
APPL. NO.: 9-116,780
FILED: July 16, 1998 (19980716)

1. RELATED APPLICATIONS

This application is a continuation-in-part of pending U.S. patent application Ser. No. 08-745,957 of Peter C. Colosi filed Nov. 7, 1996 and entitled "Accessory Functions for Use in Recombinant AAV Virion Production," which Patent Application is incorporated herein by reference. U.S. patent application Ser. No. 08-745,957 is related to and claims priority under 35 U.S.C. selection 119(e)(1) from Provisional Application 60-006,402, filed Nov. 9, 1995. Provisional application 60-006,402 is incorporated herein by reference.

FULL TEXT: 1125 lines

ABSTRACT

Composition and methods are provided for producing recombinant AAV ("rAAV") in the absence of helper **virus**, such as adenovirus. The compositions provide the accessory functions necessary for supporting rAAV virion production in host cells. In certain embodiments, the accessory functions are provided by vectors comprising nucleotide sequences from an adenoviral E4 region which lack the putatively oncogenic E4 ORF 6 coding region. The present invention also includes host cells transfected by the claimed accessory function vectors, methods of using such vectors, and rAAV virions produced by such methods.

9/3,AB/37 (Item 11 from file: 654)
DIALOG(R)File 654:US Pat.Full.

02976657
Utility
METHOD FOR PREPARING MUTANT GENES

PATENT NO.: 5,928,866
ISSUED: July 27, 1999 (19990727)
INVENTOR(s): Imamoto, Fumio, Osaka, JP (Japan)
Ishino, Yoshizumi, Shiga, JP (Japan)
Furusawa, Mitsuru, Tokyo, JP (Japan)
Doi, Hirofumi, Kanagawa, JP (Japan)
ASSIGNEE(s): Research Development Corporation of Japan, (A Non-U.S. Company or Corporation), Saitama, JP (Japan)
[Assignee Code(s): 70929]
APPL. NO.: 8-573,419
FILED: December 15, 1995 (19951215)
PRIORITY: 6-312261, JP (Japan), December 15, 1994 (19941215)
6-312262, JP (Japan), December 15, 1994 (19941215)
7-173715, JP (Japan), July 10, 1995 (19950710)

FULL TEXT: 444 lines

ABSTRACT

This invention provides A method for preparing mutant genes, which comprises the steps of constructing a recombinant plasmid DNA by inserting a gene fragment into a plasmid DNA having a unidirectional origin, introducing the recombinant plasmid DNA into host cell lacking DNA error-correcting function to transform the host cell, and culturing the transformant cell in a condition that any mutations of the inserted gene is detectable. According to the present invention, diverse mutant genes can be prepared in a short period of time.

9/3,AB/40 (Item 14 from file: 654)
DIALOG(R)File 654:US Pat.Full.

0295050

Utility

[5--CABOXAMIDO OR 5--FLUORO]--[2', 3'--UNSATURATED OR 3'--MODIFIED]--PYRIMIDINE NUCLEOSIDES

PATENT NO.: 5,905,070
ISSUED: May 18, 1999 (19990518)

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      Set  Items  Description
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            $0.18    0.055 DialUnits File1
     $0.18  Estimated cost File1
     $0.01  TELNET
     $0.19  Estimated cost this search
     $0.19  Estimated total session cost   0.055 DialUnits

File 410:Chronolog(R)  1981-1999 Sep/Oct
       (c) 1999 The Dialog Corporation plc

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? b 155, 5, 399, 357
       03nov99 20:02:36 User233835 Session D323.2
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     $0.00  Estimated cost File410
     $0.06  TELNET
     $0.06  Estimated cost this search
     $0.25  Estimated total session cost   0.103 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1999/Dec W4
         (c) format only 1999 Dialog Corporation
*File 155: Medline updates are complete for 1999.
First update for 2000 will be added in mid-December.
  File   5:Biosis Previews(R)  1969-1999/Oct W2
         (c) 1999 BIOSIS
  File 399:CA SEARCH(R)  1967-1999/UD=13118
         (c) 1999 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
  File 357:Derwent Biotechnology Abs  1982-1999/Sep B2
         (c) 1999 Derwent Publ Ltd
*File 357: Derwent changes DialUnit pricing from May 1, 1999.  See
HELP DERWENT for details.

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? s au=Fields
     S2       0  AU=FIELDS
? e au=Fields, B

Ref   Items  Index-term
E1        1  AU=FIELDS, ANTHONY
E2        3  AU=FIELDS, ANTHONY L. A.
E3        0 *AU=FIELDS, B
E4        4  AU=FIELDS, B.
E5        5  AU=FIELDS, B. A.
E6        2  AU=FIELDS, B. ANNE
E7        1  AU=FIELDS, B. C.
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E9         1  AU=FIELDS, B. F.
E10        1  AU=FIELDS, B. J.
E11        3  AU=FIELDS, B. L.
E12       10  AU=FIELDS, B. N.

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Ref    Items  Index-term
E13        1  AU=FIELDS, B. S.
E14        1  AU=FIELDS, BARRY
E15       22  AU=FIELDS, BARRY A.
E16        1  AU=FIELDS, BARRY F.
E17        2  AU=FIELDS, BARRY L.
E18       14  AU=FIELDS, BARRY S.
E19       10  AU=FIELDS, BERNARD
E20        1  AU=FIELDS, BERNARD H.
E21      131  AU=FIELDS, BERNARD N.
E22        2  AU=FIELDS, BRANCH T., JR.
E23        3  AU=FIELDS, BRIAN
E24       15  AU=FIELDS, BRIAN D.

          Enter P or PAGE for more
? p

Ref    Items  Index-term
E25        1  AU=FIELDS, BRIAN DAVID
E26        1  AU=FIELDS, C.
E27       43  AU=FIELDS, C. A.
E28        1  AU=FIELDS, C. C.
E29        1  AU=FIELDS, C. D.
E30        7  AU=FIELDS, C. G.
E31        2  AU=FIELDS, C. H.
E32       11  AU=FIELDS, C. L.
E33        5  AU=FIELDS, CALVIN H.
E34        1  AU=FIELDS, CAROL
E35        1  AU=FIELDS, CARTER T.
E36        1  AU=FIELDS, CHARLES

          Enter P or PAGE for more
? s e12
      S3       10  AU="FIELDS, B. N."
? t s3/6/1-10

 3/6/1     (Item 1 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

  Molecular structure of the cell-attachment protein of reovirus:
correlation of computer-processed electron micrographs with sequence-based
predictions


 3/6/2     (Item 2 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

  Binding and transepithelial transport of immunoglobulins by intestinal M
cells:  demonstration using monoclonal IgA antibodies against enteric viral
proteins


 3/6/3     (Item 3 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

  The molecular basis of reovirus virulence
```

3/6/4 (Item 4 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

The genetic basis of viral virulence

3/6/5 (Item 5 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Molecular basis of reovirus virulence. Brief review

3/6/6 (Item 6 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Reassortment of genome segments between reovirus defective interfering particles and infectious virus: construction of temperature-sensitive and attenuated viruses by rescue of mutations from DI particles

3/6/7 (Item 7 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

The molecular basis of reovirus virulence

3/6/8 (Item 8 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

A comparison of the intracellular polypeptides of measles and subacute sclerosing panencephalitis virus

3/6/9 (Item 9 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

Fate of input oncornavirion RNA. Biological studies

3/6/10 (Item 10 from file: 399)
DIALOG(R)File 399:(c) 1999 American Chemical Society. All rts. reserv.

pH-dependence of reovirus synthesis
? t s3/7/1-10

3/7/1 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.

113036664 CA: 113(5)36664k JOURNAL
Molecular structure of the cell-attachment protein of reovirus: correlation of computer-processed electron micrographs with sequence-based predictions
AUTHOR(S): Fraser, R. D. B.; Furlong, D. B.; Trus, B. L.; Nibert, M. L.; Fields, B. N.; Steven, A. C.
LOCATION: Comp. Syst. Lab., Fogarty International Cent., Bethesda, MD, 20892, USA
JOURNAL: J. Virol. DATE: 1990 VOLUME: 64 NUMBER: 6 PAGES: 2990-2000
CODEN: JOVIAM ISSN: 0022-538X LANGUAGE: English
SECTION:
CA206003 General Biochemistry
IDENTIFIERS: reovirus sigma1 protein structure, conformation sigma1 protein reovirus, quaternary structure sigma1 protein reovirus, cell

attachment protein structure reovirus
DESCRIPTORS:
Conformation and Conformers,secondary... Quaternary structure...
of .sigma.1 protein, of reovirus, model of
Virus,animal, reo-...
.sigma.1 protein of, structural model for
Proteins,specific or class, .sigma.1...
structure of, of reovirus, model for

3/7/2 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

110190740 CA: 110(21)190740b JOURNAL
Binding and transepithelial transport of immunoglobulins by intestinal M cells: demonstration using monoclonal IgA antibodies against enteric viral proteins
AUTHOR(S): Weltzin, R.; Lucia-Jandris, P.; Michetti, P.; Fields, B. N.; Kraehenbuhl, J. P.; Neutra, M. R.
LOCATION: Med. Sch., Harvard Univ., Boston, MA, 02115, USA
JOURNAL: J. Cell Biol. DATE: 1989 VOLUME: 108 NUMBER: 5 PAGES: 1673-85 CODEN: JCLBA3 ISSN: 0021-9525 LANGUAGE: English
SECTION:
CA215003 Immunochemistry
IDENTIFIERS: virus Ig transport intestine, intestine M cell transport Ig
DESCRIPTORS:
Bile... Liver,metabolism...
anti-viral IgA transport in, secretory component addn. in
Virus,animal, murine mammary tumor... Virus,animal, reovirus 1...
antigens of, IgA to, binding and transepithelial transport of, by intestinal M cells
Lymph gland,Peyer's patch, M cell...
IgA to viral antigens binding and transepithelial transport by
Immunoglobulins,A, monoclonal...
to enteric viral antigens, binding and transepithelial transport of, by intestinal M cells
Glycophosphoproteins,.mu.1C... Glycoproteins,specific or class, gp52...
Protein formation initiation factors,.sigma.3...
viral, monoclonal IgA to, binding and transepithelial transport of, by intestinal M cells
Immune complexes...
virus-Ig, binding and transepithelial transport of, by intestinal M cells

3/7/3 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

101020250 CA: 101(3)20250p JOURNAL
The molecular basis of reovirus virulence
AUTHOR(S): Brown, E. G.; Fields, B. N.
LOCATION: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., Boston, MA, 02115, USA
JOURNAL: Ig. Mod. DATE: 1983 VOLUME: 80 NUMBER: 6 PAGES: 1002-17
CODEN: IGMPAX ISSN: 0019-1655 LANGUAGE: English
SECTION:
CA110000 Microbial Biochemistry
CA103XXX Biochemical Genetics
IDENTIFIERS: review reovirus virulence genetics
DESCRIPTORS:
Virus,animal, reo-...
mol. basis of virulence of
Genetics...

of reovirus, virul[redacted]ce in relation to

3/7/4 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

100003104 CA: 100(1)3104f JOURNAL
The genetic basis of viral virulence
AUTHOR(S): Fields, B. N.; Byers, Karen
LOCATION: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., MA, 02115, USA
JOURNAL: Philos. Trans. R. Soc. London, Ser. B DATE: 1983 VOLUME: 303
NUMBER: 1114 PAGES: 209-18 CODEN: PTRBAE ISSN: 0080-4622 LANGUAGE: English
SECTION:
CA110000 Microbial Biochemistry
CA103XXX Biochemical Genetics
CA114XXX Mammalian Pathological Biochemistry
IDENTIFIERS: review virus virulence genetics
DESCRIPTORS:
Genetics...
of virus virulence
Virus,animal...
virulence of, genetics of

3/7/5 (Item 5 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

96158824 CA: 96(19)158824p JOURNAL
Molecular basis of reovirus virulence. Brief review
AUTHOR(S): Fields, B. N.
LOCATION: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., Boston, MA, USA
JOURNAL: Arch. Virol. DATE: 1982 VOLUME: 71 NUMBER: 2 PAGES: 95-107
CODEN: ARVIDF ISSN: 0304-8608 LANGUAGE: English
SECTION:
CA110000 Microbial Biochemistry
CA114XXX Mammalian Pathological Biochemistry
IDENTIFIERS: review reovirus virulence, virus reo virulence review
DESCRIPTORS:
Virus,animal, reo-...
virulence of, mol. basis of

3/7/6 (Item 6 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

95038980 CA: 95(5)38980u JOURNAL
Reassortment of genome segments between reovirus defective interfering particles and infectious virus: construction of temperature-sensitive and attenuated viruses by rescue of mutations from DI particles
AUTHOR(S): Ahmed, Rafi; Fields, B. N.
LOCATION: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., Boston, MA, 02115, USA
JOURNAL: Virology DATE: 1981 VOLUME: 111 NUMBER: 2 PAGES: 351-63
CODEN: VIRLAX ISSN: 0042-6822 LANGUAGE: English
SECTION:
CA010004 Microbial Biochemistry
IDENTIFIERS: reovirus defective interfering particle recombination, mutation reovirus defective interfering particle, RNA reovirus defective interfering particle
DESCRIPTORS:
Recombination,genetic...

by reoviral defective interfering particles, mutation rescue by
Virus,animal, reo-...
defective interfering particles of, mutation rescue from, by recombination
Ribonucleic acids,viral...
of reovirus defective interfering particles, rescue of mutations in
Mutation...
rescue of, of reoviral defective interfering particles, by recombination
Proteins...
.sigma.3, of capsid of reoviral defective interfering particle, mutation in RNA for

3/7/7 (Item 7 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

94117396 CA: 94(15)117396r JOURNAL
The molecular basis of reovirus virulence
AUTHOR(S): Fields, B. N.; Weiner, H. L.; Drayna, D. T.; Sharpe, A. H.; Hrdy, D.; Rubin, D.; Burstin, S.; Ahmed, R.; Gentsch, J.; Donis-Keller, H.
LOCATION: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., Boston, MA, 02115, USA
JOURNAL: ICN-UCLA Symp. Mol. Cell. Biol. DATE: 1980 VOLUME: 18
NUMBER: Anim. Virus Genet. PAGES: 663-71 CODEN: IUSMDJ ISSN: 0097-9023
LANGUAGE: English
SECTION:
CA010000 Microbial Biochemistry
IDENTIFIERS: review reovirus virulence, virus reo virulence review
DESCRIPTORS:
Virus,animal, reo-...
virulence of, mol. basis for

3/7/8 (Item 8 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

91120009 CA: 91(15)120009k CONFERENCE PROCEEDING
A comparison of the intracellular polypeptides of measles and subacute sclerosing panencephalitis virus
AUTHOR(S): Wechsler, S. L.; Stallcup, Kathryn C.; Fields, B. N.
LOCATION: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., Boston, MA, 02115, USA
JOURNAL: Negat. Strand Viruses Host Cell, (Cambridge Virus Symp.), 3rd
EDITOR: Mahy, Brian W. J. (Ed), Barry, Richard D (Ed), DATE: 1978
PAGES: 169-80 CODEN: 41BOA6 LANGUAGE: English MEETING DATE: 77
PUBLISHER: Academic,London, Engl
SECTION:
CA010001 Microbial Biochemistry
IDENTIFIERS: protein measles sclerosing panencephalitis virus
DESCRIPTORS:
Peptides,biological studies... Proteins...
of measles and subacute sclerosing panencephalitis viruses
Animal cell,virus-infected... Cell nucleus... Cytoplasm...
protein formation by measles and subacute sclerosing panencephalitis viruses in
Virus,animal, subacute sclerosing panencephalitis...
proteins of, measles virus in relation to
Virus,animal, measles...
proteins of, subacute sclerosing panencephalitis virus in relation to

3/7/9 (Item 9 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.

84161628 CA: 84(23)161628k JOURNAL
Fate of input oncornavirion RNA. Biological studies
AUTHOR(S): Sveda, M. M.; Fields, B. N.; Soeiro, R.
LOCATION: Dep. Med., Albert Einstein Coll. Med., Bronx, N. Y.
JOURNAL: J. Virol. DATE: 1976 VOLUME: 18 NUMBER: 1 PAGES: 85-91
CODEN: JOVIAM LANGUAGE: English
SECTION:
CA910002 Microbial Biochemistry
IDENTIFIERS: Friend leukemia virus replication, RNA DNA hybrid oncornavirus replication
DESCRIPTORS:
Ribonucleic acids,viral...
DNA hybrids, in oncornavirus replication
Virus,animal...
Friend leukemia, replication of, RNA-DNA hybrids in
Deoxyribonucleic acids...
viral, RNA hybrids, in oncornavirus replication

3/7/10 (Item 10 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.

79002634 CA: 79(1)2634q JOURNAL
pH-dependence of reovirus synthesis
AUTHOR(S): Fields, B. N.; Eagle, H.
LOCATION: Dep. Med., Albert Einstein Coll. Med., Bronx, N. Y.
JOURNAL: Virology DATE: 1973 VOLUME: 52 NUMBER: 2 PAGES: 581-3
CODEN: VIRLAX LANGUAGE: English
SECTION:
CA910003 Microbial Biochemistry
IDENTIFIERS: pH reovirus, virus pH
DESCRIPTORS:
Virus,animal...
reo-, pH effect on
? e au=joklik w

Ref	Items	Index-term
E1	1	AU=JOKLIK B
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E4	215	AU=JOKLIK W K
E5	125	AU=JOKLIK WK
E6	9	AU=JOKLIK WOLFGANG K
E7	1	AU=JOKLIK, G. F.
E8	2	AU=JOKLIK, J.
E9	11	AU=JOKLIK, JAROSLAV
E10	7	AU=JOKLIK, OTTO
E11	2	AU=JOKLIK, OTTO F.
E12	1	AU=JOKLIK, R.

Enter P or PAGE for more
? s e4 or 35
<------User Break------>
u!
? s e4 or e5
215 AU=JOKLIK W K
125 AU=JOKLIK WK
S4 340 AU="JOKLIK W K" OR AU="JOKLIK WK"
? s s4 and nitrosoguanidine or proflavine
340 S4
10049 NITROSOGUANIDINE

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            1818  PROFLAVINE
      S5    1818  S4 OR NITROSOGUANIDINE OR PROFLAVIN
? s s4 and (nitrosoguanidine or proflavine)
             340  S4
           10049  NITROSOGUANIDINE
            1818  PROFLAVINE
      S6       2  S4 AND (NITROSOGUANIDINE OR PROFLAVINE)
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...completed examining records
      S7       2  RD (unique items)
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 7/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 1999 BIOSIS. All rts. reserv.

01385588   BIOSIS NO.: 000057025548
TEMPERATURE SENSITIVE MUTANTS OF REOVIRUS PART 4 EVIDENCE THAT ANOMALOUS
  ELECTROPHORETIC MIGRATION BEHAVIOR OF CERTAIN DOUBLE STRANDED RNA HYBRID
  SPECIES IS MUTANT GROUP SPECIFIC
AUTHOR: SCHUERCH A R; JOKLIK W K
JOURNAL: VIROLOGY 56 (1). 1973 218-229.
FULL JOURNAL NAME: Virology
CODEN: VIRLA
RECORD TYPE: Citation


 7/7/2     (Item 2 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 1999 BIOSIS. All rts. reserv.

00261609   BIOSIS NO.: 000050076609
ISOLATION AND PRELIMINARY GENETIC AND BIOCHEMICAL CHARACTERIZATION OF
  TEMPERATURE SENSITIVE MUTANTS OF REOVIRUS NEOPL L CELLS RECOMBINATION
  NITROUS-ACID MUTAGEN NITROSO GUANADINE MUTAGEN PROFLAVINE MUTAGEN
AUTHOR: FIELDS B N; JOKLIK W K
JOURNAL: VIROLOGY 37 (3). 335-342. 1969.
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